DRAFT DISCUSSION PAPER
FOR PUBLIC CONSULATION

A REPORT ON THE IMPACT OF CURRENT GRAPE-PRICING TRENDS ON THE RIVERLAND REGION

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Executive Summary

Purpose

On February 14, 2005 the Premier, Minister for Agriculture, Food and Fisheries, and the Minister for the River Murray met with representatives of the Riverland Winegrape Growers Association to discuss grape growers' concerns with a trend that has seen prices paid for wine grapes drop significantly over recent years.

As a result of this meeting, Primary Industries and Resources SA was requested to work with the Riverland Winegrape Growers Association to undertake an economic assessment of the impact of lower grape prices on the Riverland community.

A prime impetus for the current analysis is the low prices being offered on the spot market for grapes without contracts. The issues addressed in this analysis are not confined to the Riverland but, as requested, the report focuses on issues and impacts affecting that region. Other grape-growing regions within South Australia and in other States have identified similar issues impacting on the viability of the industry.

The brief for the report has been confined to an economic impact analysis of grape pricing problems, and has not addressed in detail the social impacts mainly due to the unavailability of appropriate and relevant data. However, we strongly support further work being undertaken to analyse the flow-on impacts. For example, "off-farm income" is not included in within the report's scope, but it is acknowledged that grape income may not be the only source of income for a grower. Nor does the report assess the extent or causes of any under-investment in vineyard plantings or wine processing capacity.

Scope and Methodology

The grape-pricing problems that have stimulated the preparation of this report can be summarised as the product of three different, but related, issues:

- Currency realignments and rapid change in the international structure of wine production and retailing. In turn, these factors are requiring equally rapid adjustment to wine marketing and pricing strategies. In general, the strategies of Australian winemakers appear to be well adapted to these challenges. While they are certainly having an impact on grape prices, there is no apparent case for broad changes in marketing strategies.

- Coordination of winegrape supply and demand. The medium-term aspect of this is to do with accurate forecasting of future demand and matching vineyard planting to it. Australia is acknowledged to be the world leader in this, but there is scope for further improvement. The short-term aspect is to do with absorbing seasonal (and cyclical) surpluses. As the risks are greater in the market for surplus grapes and bulk wine and the incentive to absorb the surplus is greater for growers, there is a strong case for risk-sharing arrangements between growers and winemakers in this part of the market.

- Meeting the cost pressures that a more competitive world market is placing on grape producers. There are significant scale economies in winegrape production, so these pressures are being felt most on smaller vineyards. On the other hand, there is firm evidence that larger-scale vineyards should be able to operate profitably in the market for warm-climate wines, even under conditions of long-term international competitive pressures. There are a number of strategies that owners of smaller vineyards can pursue to help them remain competitive. These include:

    - Collaborative marketing structures;
    - Syndication or consolidation of production from numerous farms under one management unit; and
    - Syndication of machinery:
    - Property consolidation.

The report has analysed:

- The increasingly competitive global wine market, foreign exchange-rate fluctuations and optimal wine marketing strategy;
- The problem of matching winegrape supply with demand in the context of vineyard planting cycles and seasonal variations in harvest volume and quality – and the consequent role of warm, inland regions as supply buffers in the Australian wine market; and
- Economies of scale in grape and wine production and the pressures for structural change in the industry.

Detailed consultation occurred between the PIRSA project team and Riverland winegrape growers as well as major wine producers to determine the costs of grape production in the Riverland.

Report Contents

Section 1 of the report has summarised the global, national and regional context in which the issues are occurring. **Section 2** provides an analysis of the issues affecting the Riverland wine industry. **Section 3** outlines the scenario analysis and **Section 4** examines options for addressing the issues.

Appendix 1 describes projections to 2015 for the Riverland wine industry based on two scenarios representing differing outcomes in relation to the above-listed issues. Extensive industry information and forecasting has been used to develop the scenarios.

Appendix 2 contains a submission to this enquiry by the Riverland Winegrape Growers Association. **Appendix 3** contains costs and returns on well-managed Riverland vineyards of various sizes in 2005.

Section 1: Wine Market Context

Australia's role as a major wine exporter means that it cannot expect to be immune from global wine-market pressures.

Overproduction has been a factor in the world wine market for over three decades and was once a feature of Old World production, but is now a feature of most wine producing countries.

Australia has quickly gained a solid reputation as an exporter of high-quality, consistent and affordable wines. In 2004, exports accounted for over 50% of Australian wine sales and 58% of volume. This level of international exposure, while providing the increased sales, makes producers increasingly vulnerable.

Wine consumption in Europe as a whole has been flat over the past decade and has declined in the European Union and South America. Consumption is projected to grow in the United States and the United Kingdom. Emerging European wine consuming countries are also projected to increase per person consumption in the medium term.

Wine production is very fragmented when compared to other consumer goods but, in retailing in most countries, a handful of large supermarket chains sell the majority of wine, which is typically one of the most profitable categories. Retail consolidation means the chains want to deal with fewer sellers, each with large wine portfolios, in order to reduce transaction costs. Retailers are placing a great deal of pressure on their wine suppliers for more promotions, quicker delivery, better inventory management, and lower prices. Most of the large consumer goods manufacturers have dealt with these pressures through their own consolidation and renewal of their supply chains over the past 20 years. The wine industry still has not fully adapted to these pressures. This process of adaptation is central to the issues now confronting the Riverland (and Australian) wine industry.

Consolidation in production is being driven by the consolidation in retailing of alcoholic beverages. Globalising international alcoholic beverage companies have long-term intentions to grow in whichever areas offer the greatest return. Growth will occur both by focus on the different alcoholic beverage types and on different markets and segments. Wine producers become larger in order to spread overheads over more litres. At the same time, they use their size to gain efficiencies in the purchase of inputs.

Margins are thinner from wines priced under $10. Larger companies need these wines to create the scale necessary to make larger margins on higher-priced wines and to cater to the needs of the large chain stores. These pressures push wine producers to reduce costs wherever they can, including grape prices, where wineries have significant market power in some circumstances.

Overview of the Industry

Wine is a major export for South Australia, in the twelve months up to end of November 2004, South Australia exported $A1.505 billion of wine of a total Australian value of $A2.715 billion.

Australia is dependent on two main markets – the United Kingdom and the United States. Australia's principal markets are the United Kingdom, the United States, New Zealand, Canada and Germany.

In the years 2001-02 to 2003-04, while total Australian export volumes continued to grow at 20% p.a., total value grew at 16.5% p.a. in $A terms. Nearly the entire resulting decline in per-litre value is explained by the strengthening of the Australian dollar relative to the US dollar and the currencies of other competitors. This is an impressive performance in an oversupplied and highly competitive global market and suggests that Australian wine exporters are adapting business strategies effectively to ensure that they remain competitive and viable.

Australian exporters are well positioned to take advantage of consumer preferences for popular premium wines. By 2009-10, Australian exports are projected to increase to around 1.2 billion litres, with a value of around $4.3 billion.

In 2002-03 the industry crushed 1.4 million tonnes of grapes for 1.1 billion litres of wine. In 2003-04 the crush reached 1.9 million tonnes to make 1.4 billion litres of wine. This 0.5 million-tonne inter-seasonal variation is an example of one of the major issues to be discussed below.

The area of bearing vines has more than doubled since 1996-97, but planting has slowed dramatically and current grape surpluses may turn to shortages of some varieties within a few years if global consumer demand remains buoyant.

In 2004, South Australia had 432 of wineries and a total winegrape crush of 920,194 tonnes from a total vineyard area of 69,827 hectares. South Australia directly accounts for 48.9% of Australian production

There are 21,483 hectares planted to bearing wine grape varieties in the Riverland, an increase of over 5,000 hectares since 1999. The area under vine represents 33% of the state plantings, and 14% of national plantings. The 2004 crush was just under 48% of SA's total crush and 25% of the national crush.

The four largest wine companies have about 75% of the Australian market, and the largest 20 companies hold about 95%. The remaining 1,780 wineries are competing for just 5% of the market for Australian wine.

Current oversupply

The current stocks-to-sales ratio is 2.63 years for red wine, which is above industry's preferred level of 2.5.

There is a greater oversupply of grapes, especially reds, from the cooler regions, while some white varieties are in undersupply. There is also an oversupply of grapes, mainly reds and 'multipurpose' varieties in the warmer irrigated regions.

Storage capacity is limited and stock in hand needs to be cleared for subsequent vintages. Stock write-downs, including to below the cost of production, are often necessary to provide required storage capacity. This leads to lower prices on domestic and export markets.

Projections by the Australian Wine and Brandy Corporation show supply and demand coming into balance for warm climate grapes within 4 years.

The Riverland

PIRSA estimates that the wine industry makes a direct contribution of $299 million to the Gross Regional Product of the Riverland and now directly employs in excess of 3,600 people.

There are 1,303 grape growers in the Riverland, and 797 have vineyards of less than 10 hectares in area. These properties make up a total of 4,002, or 19%, of the 21,018 hectares of vines in the Riverland. The average size of the 797 smaller vineyards is 5 hectares.

Smaller independent growers with 10 hectares or less have much higher production costs than large-scale growers. A small grower's total costs of production, including 8 percent cost of capital, are higher than the average price per tonne paid in the Riverland over the past 5 years.

In 2003, five of the twenty-two largest processors were located in the Riverland. The region has significant fermentation and storage capacity, at some 295 million litres and 390 million litres respectively. It is estimated that crushing capacity is around 350, 000 tonnes, which is significantly short of the 2004 harvest of 440,000 tonnes.

The wine industry in the Riverland has experienced considerable growth in employment since 1991. It has experienced improvements in the unemployment rate above the national average and has a lower youth unemployment rate than the average for South Australia. The Riverland recorded one of the lowest median household income ranges for the Australian wine industry.

Section 2: Issues affecting the Riverland wine industry

Australian winemakers have a competitive challenge in the form of a strengthening Australian dollar. This is creating an advantage for United States producers and for those producers, whose domestic currencies are pegged to, or move with, the $US.

While growth in higher-priced wines has not equalled that at the low end, average export value has not fallen when viewed in $US terms. The stability of average prices in $US terms indicates that Australian exporters are not shifting down-market as much as meeting the current prices for their existing products in the various destination countries.

Cheaper wine prices in the United States have caused accelerated growth in per-capita wine consumption. This growth is already starting to expand into higher-priced categories. The result has been a turnaround in Californian winegrape prices. Australian producers are capitalising on these consumer trends.

Winegrape Supply-Demand

The problem of winegrape supply-demand coordination is one that affects all wine-producing regions and nations. The short-term problem is driven by seasonal fluctuation in harvest volume and quality; the medium-term problem is that of coordinating vineyard plantings with expected (but unknown) demand for different varieties in three or more years' time.

Because demand for branded popular premium wines is relatively stable and grape production fluctuates, there is an important role for the international bulk market in absorbing seasonal and cyclical surpluses. Growers are concerned that wine shipped in bulk can be blended with inferior wines from other countries and sold as "Product of Australia", potentially damaging the reputation of the region.

Prices of warm-climate grapes tend to fluctuate more than those of cool-climate grapes, providing evidence that warm regions act as "supply buffers" for the national wine industry in times of grape shortage and oversupply. This means that warm-climate growers have a greater incentive to work with wineries to absorb seasonal and cyclical surpluses than their cool-climate colleagues. This will involve a degree of risk sharing between wineries and growers. The issues to be resolved include those relating to communication between parties and a possible legislative impediment in the form of the *Wine Grapes Industry Act 1991*.

The medium-term term problem of coordinating plantings with expected demand requires good forecasting and good dialogue. Australia is acknowledged as the world leader in this, but there is room for further improvement in both aspects. Intensive dialogue takes place between many wineries and their growers to ensure that grapes match winery specifications. Discussion of future plantings is usually part of this dialogue. This is one of the Australian industry's competitive advantages, but it imposes significant transaction costs on both parties. It is more efficient for a winery to negotiate with one big grower and, in the current oversupplied grape market, they are favouring bigger and better-performing growers when renegotiating contracts.

High transaction costs are part of the scale-economy problem discussed in the next section. One way that smaller growers can address this problem is by forming collaborative marketing entities, of which a number already exist in SA. In addition to their marketing function, such entities have an important role in coordinating future plantings.

Production Costs

The report includes summaries of detailed analysis of vineyard and winery costs. Data for the analysis is highly credible, being sourced from two reliable sources. Data for 10- and 50-hectare vineyards was supplied by growers in a cost analysis process conducted by Rural Solutions SA, an agency of the SA Government. Those for 170- and 600-hectare vineyards were sourced from accounting records of several corporate producers.

Growers have a legitimate interest in the marketing strategies of wineries: a relatively small increase in the retail price of wine ($7.99 compared with $6.99 per bottle) has a big impact on the price wineries can afford to pay for grapes ($650/tonne compared with $450/tonne). The key issue for growers is that, in grape production (as in wine production), the economies of scale are substantial. To get an 8% return on the vineyard investment at $650 per tonne, the minimum size required is around 50 hectares while, at $450 per tonne, the minimum size increases to about 150 hectares. For a vineyard of 10 hectares, the cost of production, including 8% cost of capital, is $763 per tonne.

Thus the minimum scale for long-term viability of vineyards is critically sensitive to wine pricing. However, as mentioned above, from the perspective of maintaining their international competitiveness, it is difficult to mount a robust criticism of the marketing strategies of Australian exporters.

Prices in the $550-650 per-tonne range may well be sustainable for warm-climate grapes grown to winery specifications under long-term contracts. Many wineries appear content to pay these prices for grapes for their branded popular premium wines, particularly if they can be confident that the price will remain fairly stable. The issue is that, if wineries pay more than their competitors do for grapes of the same quality, the resulting wine will be difficult or impossible to sell at a profit. They respond by either pushing down their own offer price or not buying grapes that they would have bought in a more stable market. Either response hurts growers as a group and thus growers have a vested interest in an effective solution to the oversupply problem.

Thus growers and winemakers have much to gain from jointly finding ways of absorbing seasonal surpluses. These push down the spot price and unsettle the markets for branded and bulk wines while threatening the viability of vineyards on which both depend.

Section 3: Scenario Analysis

Scenario analysis has been undertaken to estimate the impacts of two differing scenarios, a "base case" and "potentially achievable" scenario, on winegrape and wine production in the Riverland and on the regional economy. The "base case" assumes reasonably conservative demand growth for Australian wine and no effective resolution of the issues raised in this report. Consequently grape prices are conservative. The "potentially achievable" scenario assumes more buoyant, but realistic, demand for wine, as well as effective and fairly rapid resolution of the issues raised.

The result is that, by 2015, the "potentially achievable" scenario is projected to deliver significant improvements in the Riverland wine industry, compared with the "base case". These include:

- 70% greater value of grape and wine production;
- 70% more direct contribution to the Gross Regional Product, that is, to wages, salaries and profits that remain in the region; and
- 40% more jobs in the grape and wine industry.
- The indirect, or flow-on, effects on the rest of the Riverland economy are not estimated but are expected to be almost as large as the direct effects.

Section 4: Potential Strategies

The role of the South Australian Government, in addressing the current grape oversupply issues, must be viewed in the context of the joint wine industry and government partnership, which has clearly defined the roles of both industry and government.

Refer to "Results" on page 11 of this report for recommended strategies.

Appendix 1: Scenario Projections

Projections have been developed to include both an optimistic and a pessimistic scenario in Australia's five key markets. They account for about 84% of the total exports in volume and value. These projections are combined with those of the Australian Bureau of Agricultural and Resource Economics (ABARE) to form the basis for the two scenarios presented in the report.

- United Kingdom is likely to remain the top or second top Australian market, in total value terms, with volume increasing as per the last few years but per-litre value decreasing. **Optimistic**: Volume increases maintained over the next five years at the same rate. Value per litre remains above $3.50. **Pessimistic**: Volume increases, but slows by 50% relative to the last four years (i.e., one half the linear increase). Value drops below $3.50 to $3.25 per litre.

- The United States will continue to be the one of the two largest markets for Australian wine in total value for the next 5 years. **Optimistic**: The volume of exports increases at the same rate as the last four years. **Pessimistic**: The

volume of exports slows by 25% over the optimistic, but value falls to $4.00 per litre.

- The Canadian market will continue to be a strong third place market. **Optimistic**: Volume growth at the same pace as the last 4 years, with value growth not deteriorating as quickly. **Pessimistic**: Volume growth slows 25% compared to the optimistic and value falls below $5.00 per litre.

- New Zealand has dropped from the third to the fourth largest export market and will likely fall behind Germany over the next 5 years. New Zealand will not grow significantly, as both the population and the wine category remain relatively stable. **Optimistic**: Volume will stay about level with the last year. **Pessimistic**: Volume falls by 10% per year as imports of other wines take the lower end of the market from Australia.

- Germany is a low-priced market. However, it is a huge market where Australia has a relatively low share. **Optimistic**: Growth continues at the slow and steady pace of the previous 4 years. **Pessimistic**: Growth slows due to increasing competition from Europe and the New World.

- There is a possibility that the other markets will increase as Australian wines are better promoted and efforts to gain share in those countries begin to work. **Optimistic**: Total volume sales of 52 million litres (in 2004) double over this period. **Pessimistic**: Total volume grows by 50% over this period and value by 30% due to weakening of the Euro and strong competition from both European and New World competitors.

The “base case” is based on a combination of the “pessimistic” scenarios above and the modelling of ABARE, which is the most comprehensive modelling of Australian national wine and winegrape supply and demand available. The “base case” projects 2.9% annual growth in total Riverland winegrape value from $234 million in 2005 to $321 million in 2015. For 2005, the estimate is 459,000 tonnes at an average price of $473/tonne, giving a total winegrape value of $217 million, which is down $17 million on 2004. Current industry estimates of the 2005 are closer to 480,000 tonnes. If this and the price prediction are accurate, $10 million will be added to the total value. The “base case” projects a continued decline in total value to $201 million in 2007, before growth resumes.

The “potentially achievable” scenario uses the “base case” as a starting point and adjusts it in line with the optimistic scenario outlined above, which broadly assumes that current export trends will continue. Resolution of the current issues, including improvement in demand and supply coordination, adjustment to address vineyard cost pressures and absorb seasonal surpluses, is assumed. This is projected to generate a vineyard planting response, such that total grape volume growth increases from 2.2% in 2007 and 2008 to 10% p.a. from 2009 to 2015. The result is steady growth of around 13% p.a. from a total winegrape value bottoming out at $206-208 million in 2006 and 2007 to a projected 939,000-tonne harvest worth $543 million in 2015.

Appendix 2: Submission from the Riverland Winegrape Growers Association on the Situation and Views of Riverland Winegrape Growers

Growers' sense there is an expectation that they can and will absorb all cost increases and price pressures experienced by other members of the supply chain. Growers are aggrieved that the sum total of their investments, not only in their vineyards but also in the infrastructure improvements made to ensure they can produce quality winegrapes are not valued by industry.

Prices being offered now and those that have already been forecast for next year, are not sustainable in as much as they will not meet the cost of growing let alone provide any sort of contribution towards grower debt or enable any further improvements to grower enterprises or qualifications.

Families are experiencing severe pressure and there are signs of conflict as a result. There is a disturbing awareness among growers of financial institutions who have their own commercial imperatives to consider. There has been some talk of growers walking off.

Growers perceive the focus is increasingly less on growing quality winegrapes and more on reducing unit costs of production. Contractual arrangements between growers and wineries have been altered and have become agreements to purchase since there is no longer mutual consideration expressed in those documents.

As growers lose confidence in the industry and move out, there is a further area of decline; the loss of knowledge and experience, and the huge investment in education and training that has largely fuelled the rapid growth of quality winegrapes and formed the foundation upon which industry's reputation is built.

The majority of winegrape growers of the Riverland rely upon off farm income to enable them to continue growing high quality winegrapes. If off farm work opportunities diminish this will increasing the number of growers experiencing financial distress.

Appendix 3: Costs and Returns on Well-managed Riverland Vineyards of Various Sizes in 2005

Data on 10- and 50-hectare vineyards was provided by independent growers and compiled by Rural Solutions SA, an agency of the South Australian Government. Those for 170- and 600-hectare vineyards were sourced from accounting records of several corporate producers. All analyses are done on a standard profit-and-loss accounting basis, including depreciation costs. The corporate data include direct administrative overheads, such as accounting costs, but no allowance for a share of head-office overheads. The corporate capital costs are on a historical-cost basis, whereas those for 10- and 50-hectare vineyards are current development costs. Thus the corporate capital-cost data are understated relative to the other. The corporate data has been broadly confirmed by comparison to that of a third major corporate, whose average production costs, including allocation of head-office overheads, equates to $248 per tonne for yields of 23 tonnes per hectare.

Results

The South Australian Government, in conjunction with grape growers and wine producers, will review the South Australian *Wine Grapes Industry Act 1991* to ensure that it provides a responsive business and regulatory environment.

The South Australian Wine Industry Council will continue to monitor grape pricing trends for all South Australian regions. In addition, a representative of the Riverland wine grape industry will be invited to join the South Australian Wine Industry Council.

There are a number of strategies that growers can select from to help them remain competitive in the winegrape market, despite small vineyard size:

- *Collaborative Marketing Structures*: Examples include CCW Ltd in the Riverland and Barossa Valley Estates. These structures have two functions: they can help address an imbalance of market power and they can reduce transaction costs for the winery as it can purchase a large quantity of grapes via one transaction.

- *Syndication of production from numerous farms under one management unit*: There are numerous ways in which this can be achieved. These can include:

    - Assigning management of a group of vineyards to an external manager.
    - Leasing or selling numerous vineyards into a trust or company in which the participants have shares, then employing a manager to run the business.
    - "New generation co-operatives" may have a role. These combine the strengths of co-operatives with those of corporate structures.
    - Syndication of machinery: allows bigger, more efficient equipment to be purchased and round-the-clock operation by the joint owners at critical periods.

- *Property consolidation*: Some growers may decide to consolidate property and grow holdings in order to take advantage of the economies of scale that have been demonstrated.

These strategies have all been shown to generate advantages to producers in situations similar to those now faced by Riverland growers. Implementing them requires a combination of analytical and negotiation skills, patience and enthusiasm for collaborative endeavour.

Recommendation

The report is now available for industry (in partnership with government) to take for information and appropriate action.

Introduction

On 14 February 2005, the Premier, the Minister for Agriculture, Food and Fisheries and the Minister for the River Murray met with representatives of the Riverland Winegrape Growers Association to discuss grape growers concerns with a trend that has seen prices paid for wine grapes drop significantly over recent years.

As a result of this meeting, Primary Industries and Resources SA was requested to work with the Riverland Winegrape Growers Association to undertake an economic impact assessment of lower grape prices on the Riverland community.

The brief for this report asks for an assessment of the impact of current wine pricing trends on the future of the grape and wine industry in the Riverland. A prime impetus for the current analysis is the low prices being offered on the spot market for grapes without contracts.

The issues addressed in this analysis, while confined in scope to the Riverland, have been identified in other grape growing regions within South Australia and other states as impacting on the viability of the industry.

Riverland grower groups have expressed concern that very competitive pricing has led to lower price points, with the result that the average price of Australian exports has declined by 25% from $A5.50 per litre in 1999-2000 to $A4.10 per litre in 2003-04. Accordingly, in 2003-04, 'bulk' category exports (less than $2.50 per litre FOB) grew by 22% in volume and bottled popular premium wine exports grew by 32%, compared with growth of 14% overall (ABARE 2005).

However, in the years 2001-02 to 2003-04, while total Australian export volumes continued to grow at 20% p.a., total value grew at 16.5% p.a. in $A terms. This is an impressive performance in an oversupplied and highly competitive global market and suggests that Australian wine exporters are adapting business strategies to ensure that they remain competitive and viable.

The concern amongst growers is that they believe that there has been undue emphasis on price discounting and, in particular, on export of bulk (essentially commodity) wine and that this is undermining the reputation of Australian warm-climate wines. These growers fear that the thinner margins available in this environment will exacerbate the downward pressure on warm-climate grape prices and threaten the livelihoods of independent growers, especially those with smaller holdings.

The concerns raise three groups of issues, which this report will analyse separately:

- The increasingly competitive global wine market, foreign exchange-rate fluctuations and optimal wine marketing strategy;
- The problem of matching winegrape supply with demand in the context of vineyard planting cycles and seasonal variations in harvest volume and quality – and the consequent role of warm, inland regions as supply buffers in the Australian wine market; and

- Economies of scale in grape and wine production and the pressures for structural change in the industry.

In undertaking the study, detailed consultation has occurred between the project team and Riverland winegrape growers, major wine producers and industry analysts to determine the costs of grape production in the Riverland.

Section 2 of the report will summarise the global, national and regional context in which these issues are occurring. Section 3 will provide an analysis of the issues and Section 4 will canvass options for addressing the issues. Appendix 1 will describe projections to 2015 for the Riverland wine industry based on two scenarios representing differing outcomes in relation to the above-listed issues. It will also compare the projected trends with those of the last decade.

Appendix 2 contains a submission to this enquiry by the Riverland Winegrape Growers Association. It provides comments by the Association's Executive Officer, reporting on the situation and views of grower members.

Appendix 3 contains data on 10- and 50- hectare vineyards provided by independent growers and for 170- and 600- hectare vineyards data sourced from accounting records of several corporate producers.

Some data sources used in preparing this report refer to the study area variously as the Lower Murray, Murraylands, Riverland GI or Riverland. For ease of reference, the authors have used "Riverland" throughout the document.

1. Wine Market Context

1.1. The Global Wine Market

Australia's role in the global wine marketplace means that it cannot expect to be immune from the pressures that are being experienced throughout the world.

Overproduction has been a factor in the world wine market for over three decades. This was primarily a feature of Old World (France, Italy, Spain) production and comprised lower quality wines, but with the expansion of planting into the New World (Australia, United States, Chile, South Africa etc), surpluses are a feature of most wine producing countries, and with improvements in technologies, the surplus is often of a better quality. Wine producers in the European Union have benefited considerably from subsidies.

In 2001, Australia was ranked 10th in the world in terms of grape production. The 'Old World' countries of Italy, Spain and France are still dominant in terms of area under vine and overall tonnages produced. (Table 1.1)

Table 1.1: Grape production areas of vines & yield of selected countries, 2001

Country	Total grapes '000 t	Wine grapes	Area of vines (b) '000 ha	Yield t/ha
Italy	8988.4	na	908	9.9
France	7312.9	7223.8	914	8.0
USA	5958.8	3243.4	415	14.4
Spain	5037.6	na	1235	4.1
China	3679.7	na	359	10.2
Turkey	3250.0	na	564	5.8
Iran	2516.7	na	301	8.4
Argentina	2459.9	2350.4	205	12.0
Chile	1785.0	721.2	178	10.0
Australia	**1546.0**	**1391.1**	**148**	**10.4**
Romania	1121.7	995.2	247	4.5
Portugal	952.6	894.6	248	3.8
Other Countries	16616.2	na	2171	7.7
World Total	61225.5	na	7893	7.8

Source ABS 1329.0

There has been a decline in Old World wine production since the peak in 1982. This mainly reflects supply control measures implemented in the European Union. As well as cutting wine output, the measures have shifted production toward more marketable varieties of wine grapes. The decline has been partly offset by increases in wine production in the 'New World' countries. Table 1.2 provides an overview of world wine production for selected countries for the period 1997 to 2003.

While global wine production has been relatively stable, as is the nature of primary production, there has been high variability between vintages.

Table 1.2: Wine production, 2003

	WINE PRODUCTION (ML)		
	1997	2000	2003
1 France	5 356	5 754	4 735
2 Italy	5 089	5 162	4 409
3 Spain	3 322	4 169	3 600
4 United States of America	2 200	2 330	2 350
5 Argentina	1 350	1 584	1 180
6 China	900	1 050	1 120
7 **Australia**	**617**	**859**	**1 085**
8 Germany	850	985	829
9 South Africa	881	837	761
10 Portugal	612	669	680
11 Chile	455	642	575
12 Romania	669	546	546
13 Moldova	367	270	445
14 Greece	399	356	420
Other	3 724	3 423	3 472
World	26 791	28 636	26 207

Source: Australian Wine and Brandy Corporation

Table 1.3 shows that in 1997, while Australia had only 2.5 per cent of world wine exports, by 2003 this had grown to 7.1 percent.

Table 1.3 Volume share of world wine exports

	VOLUME SHARE OF WORLD WINE EXPORTS (%)		
	1997	2000	2003
1 France	24.6	24.2	21.2
2 Italy	23.8	28.2	18.9
3 Spain	15.4	14.5	15.6
4 **Australia**	**2.5**	**4.5**	**7.1**
5 Moldova	4.2	2.8	5.2
6 Chile	3.2	4.0	5.1
7 United States of America	3.0	4.1	4.5
8 Germany	3.8	3.7	3.7
9 South Africa	1.6	2.0	3.2
10 Argentina	2.1	1.5	2.0
11 Portugal	3.7	2.7	2.0
12 Greece	0.7	0.6	1.8
13 Austria	0.4	0.5	1.2
14 Bulgaria	2.2	1.1	1.1
15 Hungary	1.5	1.2	1.0

Source: Australian Wine and Brandy Corporation

Correspondingly, the world value share of Australia's wine export also grew, as shown in Table 1.4

Table 1.4 Value share of world wine exports

VALUE SHARE OF WORLD WINE EXPORTS (%)

	1997	2000	2003
1 France	40.8	39.7	38.8
2 Italy	17.8	18.1	17.8
3 Spain	9.9	9.6	10.0
4 **Australia**	**4.0**	**6.6**	**9.1**
5 Chile	3.2	4.5	4.3
6 United States of America	3.1	4.1	3.5
7 Germany	3.6	2.8	3.2
8 South Africa	1.5	1.9	2.4
9 Portugal	4.1	3.6	2.3
10 Moldova	2.0	0.9	1.2
11 New Zealand	0.4	0.6	0.9
12 Argentina	1.0	1.2	0.8
13 Belgium	0.8	0.7	0.5
14 Austria	0.3	0.3	0.5
15 United Kingdom	1.5	0.9	0.4

Source: Australian Wine and Brandy Corporation

In 2004, exports accounted for over 60% of Australian wine sales and 58% of volume. This level of international exposure, while providing the increased sales, makes producers increasingly vulnerable to fluctuations in exchange rates. These fluctuations affect international pricing and the industry's competitiveness – impacting margins and brand investment.

World Wine Consumption

The pattern of world wine consumption is strongly influenced by cultural preferences, with European countries and South American countries that have strong ties to Europe accounting for nearly 80 per cent of all wine consumed in 1999. However, as Table 1.5 shows, growth in wine consumption in Europe as a whole has been flat over the past decade and is actually declining in the European Union and South America. At the same time the export trade in wine is growing as producers chase new markets.

In the United States, wine consumption is projected to rise by around 29 per cent over the medium term, making the United States market the fastest growing market in the world (Decanter 2005). Market growth is expected to result from the increasing availability of high quality, well-priced wines and the broader acceptance of wine by consumers as an everyday purchase.

Second only to the United States, growth in United Kingdom wine consumption is projected to be around 16 per cent in the medium term – to be around 28 litres per person. Emerging European wine consuming countries, such as Ireland, Sweden and

the Russian Federation, are projected to increase per person consumption in the medium term.

Table 1.5 Per Capita consumption (Litres)

	PER CAPITA CONSUMPTION (LITRES)		
	1997	2000	2003
1 France	60.0	55.9	55.0
2 Italy	53.5	51.0	50.0
3 Croatia	45.1	45.9	45.0
4 Switzerland	43.5	43.5	41.6
5 Portugal	54.5	46.0	41.4
6 Hungary	29.0	34.0	37.1
7 Argentina	40.3	37.8	35.3
8 Greece	34.9	34.0	33.8
9 Uruguay	30.7	32.0	33.2
10 Denmark	29.3	30.9	32.8
11 Spain	35.1	32.0	29.4
12 Austria	30.0	30.5	29.4
13 Finland	15.6	20.6	26.5
14 Romania	32.2	23.2	25.1
15 Germany	23	23.1	24.4
17 **Australia**	**19.0**	**19.7**	**20.9**

Source: Australian Wine and Brandy Corporation

As wine is considered to be a luxury good, the general relationship is for wine consumption per person to increase as income increases. Consumption in Europe and South America is generally well above the average, while in Asia and the United States it is very much below the average. Australia has an average relationship between income and wine consumption.

The competitive pressure is pushing down wine prices globally for all wines below the luxury price points. South Australia is exposed to all wine price points within the global wine industry, but would be most exposed to changes in the popular premium segments. While this market segment has been the key factor in Australia's success as a wine exporter and continues to grow, the average value per litre has dropped.

Although the global market for wine is complex, some key trends will illustrate the main motivations for current wine-pricing strategies and how the international situation affects the domestic market for wine[1].

As discussed above, overproduction is not new; the global market for wine has been in surplus since the 1960s. The surplus, however, is different today, being composed of higher quality wines from both Old (France, Italy, Spain) and New World (Australia, United States, Chile, South Africa) producers.

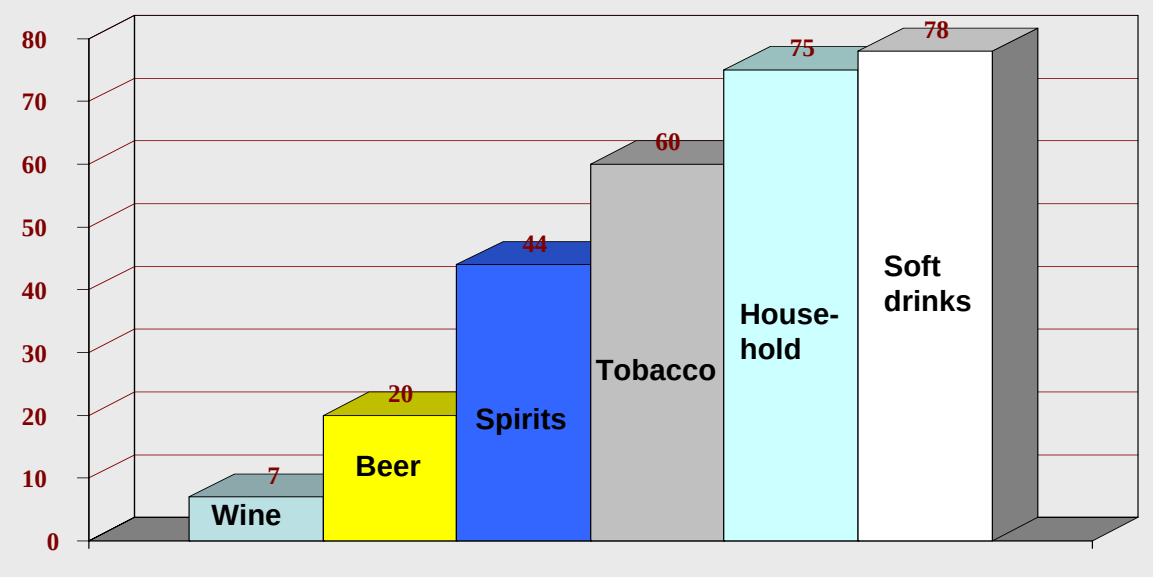
[1] The following text within section 1.1, provided by Professor Larry Lockshin, University of South Australia, 2005, edited by authors

While global wine production is relatively stable, with increases from the New World and decreases in the Old World, there can be high variability due to vintage conditions. At the same time the export trade in wine is growing as producers chase new markets, mainly in the United Kingdom, the United States, Germany (the 3 largest importers), Canada, Scandinavia, and Asia. (Note: Asian wine imports are about 10% of global trade and are not likely to constitute more than 20% in the next 10 years. Japan will be by far the biggest importer as China is planting extensive vineyards in order to produce most of its requirements for low priced wine.)

Retail Consolidation

Internationally, wine production is very fragmented when compared to other consumer goods (Figure 1.1).

Figure 1.1: % Global Market Share of Top 4 Players in each Category



Source: Lockshin, University of South Australia (2004)

The wine market is country-based due to differing legal requirements. Within most importing and consuming countries, a handful of large retail chains sell the majority of wine. Wine is a relatively new focus for these retailers, but it is typically one of the most profitable product categories and so is gaining a great deal of attention from the retailers.

The supply chain for wine is less developed than that for other fast moving consumer goods, so grocery and discount stores are placing a great deal of pressure on their wine suppliers for more promotions, quicker delivery, better inventory management, while at the same time forcing down prices.

Most of the large consumer goods manufacturers have dealt with these pressures through their own consolidation and renewal of their supply chains over the past 20 years. The wine industry still has not fully adapted to these pressures and there will be further turmoil as this adaptation continues.

The pressure on wine companies comes from several angles. Retail consolidation means the chains want to deal with fewer sellers, each of whom have larger portfolios, in order to reduce transaction costs. A typical non-wine grocery store category may have 5-10 brands with around 70-100 SKUs (stockkeeping units or variants). The wine category might have over 100 brands with 350-800 SKUs. This added complexity in purchasing, warehousing, and merchandising costs the retailer more than other categories, so they want a higher margin and they are pushing many of these activities onto the wine producers as they have done in other categories.

This forces wine producers to become larger in order to support the infrastructure (logistics, IT, warehouses, sales people, merchandisers, brand managers) necessary to sell wine. It also strongly disadvantages smaller and even medium sized wineries, which do not have the size to amortise these functions efficiently. Hence, we are also seeing some mergers and clusters of smaller producers emerging as they band together to manage these functions. Small wineries are being forced to focus on direct selling (tourism and mail order) in order to sell their wine.

Production Consolidation

The fragmentation described above provides the opportunity for more consolidation of production over the next 10 years. However, it should be understood that most of the fragmentation of production is in the Old World, rather than the New World (Table 1.6).

Table 1.6: Concentration in the Wine Sector

	Top 50 share of national wine production	Average wine sales of top 5 (US$m)
United States	75	750
New Zealand	80	na
Australia	78	310
Argentina	50	97
Chile	47	90
France (excl. Champagne)	13	330
Spain	10	190
Italy	5	125

Source: Rabobank

There would seem to be scope for more concentration in the Old World countries. However, there are few large wine companies and many of the largest are cooperatives, and therefore not likely to be available to the market. At the same time, there is a small group of globalising international alcoholic beverage companies with long-term intentions to grow in whichever areas offer the greatest return. Growth will occur both by focus on the different alcoholic beverage types (wine, beer, spirits) and on different markets and segments. Most of the world's leading alcoholic beverage companies have portfolios of brands in each of the three types, but with varying strengths.

Thus, the opportunity for acquiring wine assets depends on the portfolio and of course on each company's financial position.

The consolidation in production is being driven by even faster consolidation in the retailing of wine and other alcoholic beverages (Table 1.7).

Table 1.7: Change in Concentration in Retailing in Selected Markets

Percentage of retail wine sales by type of outlet

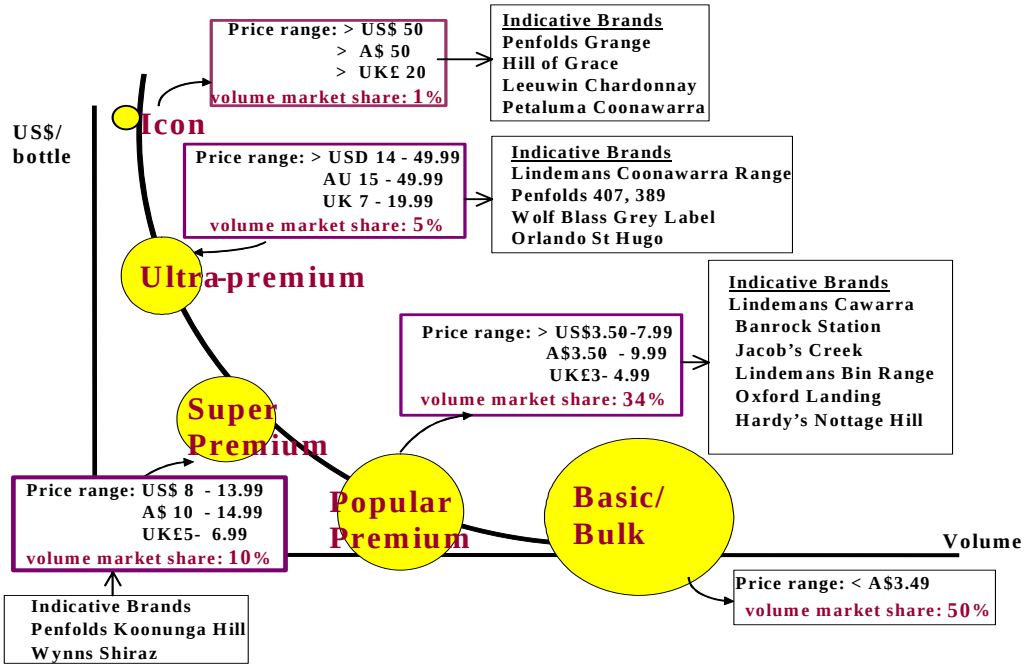
Country	2003		1991	
	Supermarket & Discount	Specialist	Supermarket & Discount	Specialist
France	82	9	41	19
United Kingdom	80	15	71	29
Germany	74	7	40	12
Spain	71	17		
United States	67	22	49	36
Brazil	64	33		
Japan	57	43		
China	65	10		
Australia	40% by value owned by Woolworths and Coles Myer			

Source: Euromonitor 2004, 1998

Market Price and Volume

The other important aspect of the global market, shown in Figure 1.2, is the structure related to price and volume. The volume of wine sold has a strongly negative correlation with its price with lower priced wines selling in much greater volumes. The price/volume structure of the global market highlights the relatively small opportunity for high priced wines (above $15) and the much larger opportunity below that price. The cost of production, however, does not change as dramatically, again making it more difficult for smaller wineries trying to compete.

Figure 1.2: Global Price Points and their Share of Volume



Source: Adapted from Lockshin, Rabobank

Wine producers also become larger in order to spread the overheads of wine makers and facilities over more litres. At the same time, these companies use their size to gain efficiencies in the purchase of inputs, from grapes, to bottles, to electricity. For example, compare the cost to produce a $25 bottle of red wine: a large wine producer would be able to make the wine at cost for about $8 while it would cost a small winery closer to $14. Once wholesale and retail margins and taxes are added, the large winery may have a gross margin of $3-$4, while the smaller one will be lucky to make $1, unless the wine is sold directly through cellar door. It should also be clear that margins are thinner from wines priced under $10, but larger companies need these wines to create the scale necessary to make larger margins on higher priced wines and to cater to the needs of the large chain stores. All of these pressures push wine producers to reduce costs wherever they can, which means especially the prices paid to grape growers, because here is one of the few places where wineries have significant market power.

Projections by the Australian Wine and Brandy Corporation show supply and demand coming into balance for warm climate grapes within 4 years. This estimate is based on conservative projections of domestic and export sales by country as provided by the major wine companies. The estimate does not include growers leaving the industry by selling or abandoning vineyards, and thus reducing supply.

1.2. The National Wine Market and Industry

Market access

Market access and quality maintenance are the keys to the survival and growth of the Australian wine industry. The very important small boutique players throughout Australia need this as much as the export dominated global companies. If Australia loses access to one of its major markets - and exports are clearly highly concentrated on the United States and United Kingdom markets and to a lessor extent the Canadian and New Zealand markets, logically the surplus would then be sold at lower prices on the domestic market, adversely impacting on all operators.

There are two reasons why Australia could lose access to an overseas market. The first a quality/health scare relating to Australian wine. We must seek to maintain quality through preservation of appropriate regulation and the current stringent export inspection regime. The second is if we become the target of protectionist policies (because we are a perceived threat) or if we are inadvertently caught up in a trade war between two other countries or targeted for retaliation due to problems with another product.

Surplus Production

Surplus production is an issue for Australia and it is a situation that adversely impacts on all operators. Storage capacity is limited and stock in hand needs to be cleared for subsequent vintages. This leads to lower prices for domestic markets, in a relatively flat market, and does not substantially grow the number of consumers.

Producers noted that the pressure to deal with surplus production resulted in stock write-downs in order to provide required storage capacity.

The Australian market place has seen the release of a plethora of cleanskin (unlabelled) wines, wines in super and ultra premium brackets being reduced in price, including to the price brackets below, and the production of wines from cool climate regions for popular premium and bulk categories. Cool climate grapes have also been included in warm climate production.

In the United States, a combination of a wine surplus and lower prices led to an increase in the number of consumers off a relatively lower base than found in Australia. Exports have the capacity to grow in this scenario. However analysis of recent exports indicate that the price per litre has decreased, which may also partly be attributed to exchange rates. Notwithstanding this, Australia maintains a higher value export than most other wine producing nations.

In 2003-04, export sales grew by around 14 per cent in volume terms, easing from 22 per cent in the previous year. However export unit values continued to fall – down 6 per cent to around $A4.40 per litre.

The largest two country markets, the United Kingdom and the United States, accounted for 38.5 per cent and 29.9 per cent, respectively, of the total value of Australian wine exports in 2003-04. Australia's dependence on its main market, the United Kingdom, is greater than that of other key wine exporting country or trading block.

Exports

Wine is a major export for South Australia, in the twelve months up to end of November 2004, South Australia exported $1.505 billion of wine.

The value of Australian wine exports continues to grow. The Australian Wine and Brandy Corporation reported that the moving annual total (MAT) for value of wine exported to November 2004 was $A2.715 billion. Export volume was 636.5 million litres on a MAT basis. Domestically, sales of Australian wine totalled 417.4 million litres in the year 2003-04.

Australia's principal markets are the United Kingdom, the United States, New Zealand, Canada and Germany. Australia's largest wine export market in 2002-03 was the United Kingdom (209 million litres worth $A860 million), closely followed by the United States of America (142 million litres worth $A828 million). These markets continue to grow. In 2003-04, exports to the United Kingdom grew to 224 million litres. However the value dropped to $A849 million. The United States wine market grew to 174 million litres worth $874 million.

In the medium term, Australian exports are well positioned to take advantage of consumer preferences for popular premium wines. By 2009-10, Australian exports are projected to increase to around 1.2 billion litres, with a value of around $4.3 billion. By 2009-10, the United States is projected to surpass the United Kingdom to become Australia's number one export destination in both volume and value terms.

The four largest wine companies have about 75% of the Australian market, and the largest 20 companies hold about 95%. Thus, the remaining 1800 wineries are competing for 5% of the Australian market.

Alcoholic Beverage Market

The two largest retail groups in Australia, Coles-Myers and Woolworths, have a stated policy to grow their share of the alcohol beverage market. While their share is currently around 42% of all alcohol sales, they are looking to increase that through acquisitions, growth, and legislative change to allow liquor sales inside grocery stores.

The same strategies necessary for a producer to deal with large retailers internationally are used domestically, ie. strong pressure from retailers for wineries to drop prices and take up many of the traditional retail functions of merchandising, stock control, and promotion.

Smaller wineries are finding it increasingly difficult to gain retail shelf space unless they can offer the same level of service or at least provide a constant demand for their wines. These domestic pressures, coupled with almost nonexistent growth in demand, have forced wine producers to look increasingly to export to maintain sales and profits.

Wine Production

Wine production is a significant industry in Australia. In 2001, there were 1318 wine producers in Australia which directly employed 30 000 people in both winemaking and grape growing (2001 Census), with further related employment in the retail, wholesale and hospitability industries. In 2004, the number of wine producers had grown to 1798, and while there are no corresponding estimates of Australian employment, it is assumed that direct employment in the industry has also grown.

During 2002-03 the industry crushed 1.4 million tonnes of grapes to make 1085 million litres of wine. In 2003-04 the crush reached 1.9 million tonnes to make 1424 million litres of wine.

In 2003 total wine grape vineyard area reached 151 000 hectares of bearing vines, with a further 15 000 hectares of non-bearing vines. The area under vines stabilised, with a similar figure in 2004. Notwithstanding this, the area of bearing vines has more than doubled since 1996-97.

In 2001-02, for the first time, the volume of wine exported exceeded domestic sales. In 2002-03 the domestic market accounted for 44 per cent of total sales of Australian wine. Table wines made up 87 per cent of consumption of local wines, with sparkling wines accounting for eight per cent and fortified wines five per cent.

However, the current stock to sales ratio is 2.63 years for red wine at 12.6%. This ratio refers to the number of years stock held compared to the current annual volume sold. While this ratio has reduced from 2002, the ratio remains above industry's preferred level.

Currently in Australia, there is an oversupply of red grapes (especially Cabernet Sauvignon) and a slight undersupply of white grapes (especially Chardonnay). Projections by the Australian Wine and Brandy Corporation show balance being restored somewhere around 2007-2008.

Generally there is a greater oversupply of grapes, especially reds, from the cooler and higher quality regions. These styles of grapes cost more to produce and the wines must sell for higher prices, but the global market at those price points is small, expensive to reach, and widely spread.

There is also an oversupply of grapes, mainly reds and 'multipurpose' varieties, like Sultana and Muscat, in the warmer irrigated regions such as the Riverland. This oversupply is due more to traditional grape growers replanting old vineyards and orchards in the mid to late 1990s with red grapes.

The intensive dialogue between growers and wineries to ensure that grapes match the latter's specifications is one of the Australian industry's competitive advantages, but it imposes significant transaction costs on both parties. It is more efficient for a winery to negotiate with one big grower than with ten small ones. Accordingly, as in other industries, processors are favouring bigger and better-performing growers when renegotiating contracts. The sustained competitive pressures in the winegrape market are also forcing growers to look for economies of scale.

1.3. The South Australian Wine Industry

In 2004, South Australia had 432 wineries, an increase of 41 from 2003. In the same year, the Phylloxera and Grape Industry Board of South Australia recorded that South Australia's total winegrape crush of 920,194 tonnes came from a total vineyard area of 69, 827 hectares, including non bearing vineyards.

In the year 2003 - 04, the Australian Bureau of Statistics reported that South Australia produced 326.7 million litres of the total Australian volume of 584.4 million litres that was exported. The value of this to the South Australian economy was $A1.4 billion.

The wine and grape industry employed some 11,960 people in 2001/02. This breaks down in to 6288 being employed in production and 5, 672 in processing.

One-third of Australian wineries that crushed 50 tonnes or more of grapes in 2002 were located in South Australia, including 11 of the nation's 20 largest processing facilities.

South Australia directly accounts for 48.9% of Australian production, however once further processing and packaging of product is taken in consideration, it is estimated that South Australia represents around 60% of production.
South Australia is renowned for it wine production, and has a number of wine regions that are internationally acclaimed. These include the Barossa Valley, Coonawarra, Clare Valley, McLaren Vale and the Adelaide Hills. Other regions such as the Adelaide Hills, Padthaway, Wrattonbully, Mt Benson, Eden Valley and Langhorne Creek have also developed reputations as producers of quality wine.

South Australia remains the focus for significant investment in the Australian wine industry.

1.4. The Riverland Wine Industry

1.4.1. The Riverland's position in the Australian Wine Industry

A Geographical Indication (GI) is an official description of an Australian wine zone, region or sub-region, which has been defined, by the Australian Wine and Brandy Corporation. The Riverland GI region is within the Lower Murray Zone.

In the Riverland there are some 21,483 hectares planted to bearing wine grape varieties. There has been an increase of over 5,000 hectares in grape vines since

1999. The area now under vine represents 33% of the state plantings, and 14% of the nation's plantings.

The Phylloxera and Grape Industry Board reports that the 2004 crush for the Riverland was 440,121 tonnes comprised of 264,531 tonnes of red grape varieties and 149,083 tonnes of white varieties. This crush was just under 48% of South Australia's total winegrape crush.

The Australian Wine and Brandy Corporation reports that the Australian total crush for 2004 was 1,747,671 tonnes, giving the Riverland 25% of the total Australian crush.

Only 12% of the Riverland crush was winery grown, which compares to an average of 24% for the whole of South Australia, meaning that the majority of wine grapes are grown by independent operators.

The principal winegrape varieties crushed in the region are:

Reds:	Shiraz, Cabernet Sauvignon, Merlot, Petit Verdot.
Whites:	Chardonnay, Muscat Gordo Blanco, Colombard, Semillon.

The production of grapes in the Riverland is reliant on irrigation from the River Murray. In South Australia, 91.9% of vineyards use irrigation, and while this is highest percentage of vineyards in Australia under irrigation, the usage, in megalitres per hectare, is less than that per hectare when compared to New South Wales or Victoria.

1.4.2. The position of the Wine Industry in the Riverland

Table 1.8 summarises the direct and total economic impacts that the grape and wine industry has on the economy of the Murray Lands region and compares it with that of the agri-food sector. Total impacts include the addition of indirect, or "flow-on" effects, which are discussed below. These impacts are in terms of value added (contribution to gross state product), employment (number of jobs) and household income. Gross Value of Output data is from PIRSA's 2003-04 ScoreCard.

Winegrapes is the total farm-gate value as estimated by the Phylloxera and Grape Industry Board of SA. Wine is the "winery-door" value of wine made in the Riverland. It is based on PIRSA's estimate that 350,000 tonnes of the region's total production of 440,000 tonnes were crushed in the region. It also assumes that only 17% of that wine was bottled in the region.

The direct and total impacts of these industries on the rest of the region are estimated using multipliers from an input-output model of the Murray Lands for the 2002/2003 financial year (EconSearch 2005). The direct impacts are those resulting directly from the operations of these industries, that is, from expenditure incurred in winegrape growing and winemaking.

Table 1.8: Direct and Total Impacts of the grape and wine industry in the Murray Lands Region compared with that of other agriculture

	Direct Impacts				Total		
Industry Sectors	Gross Value of Output ($'000)	Value Added ($'000)	Employ-ment (No. of jobs)	Household Income ($'000)	Value Added ($'000)	Employ-ment (No. of jobs)	Household Income ($'000)
Grapes	233,975	138,279	2,254	42,349	191,158	5,405	72,766
Wine	549,984	160,595	1,377	39,599	408,638	6,975	156,195
Wine Industry Total		298,875	3,631	81,948	599,796	12,379	228,962
Other Horticulture	183,482	107,511	1,508	28,645	148,172	3,727	52,709
Other Agriculture	51,602	27,393	926	14,646	43,049	1,973	23,492
Other Food Products	94,464	23,899	328	14,359	71,037	1,477	38,541
Food Industry Total		158,804	2,761	57,649	262,259	7,176	114,743

Note: The Gross Value of Output totals are not given here as there are problems with double counting, which can give misleading impressions of the significance of individual industries. For example, the value of winegrapes processed locally is included in both the wine and grape sectors. If the two were added together the farm gate value of wine grapes would be included twice.

Table 1.9 summarises the indirect impacts of the grape and wine industry on the economy of the Murray Lands. The indirect impacts are the induced effects resulting from expenditure by sectors in which the direct expenditure was spent. There are two parts to that:

- production-induced impacts – resulting from purchase of inputs to grape and wine production (e.g. jobs in fertiliser and chemical distributor companies); and
- consumption-induced impacts – resulting from purchases of consumption goods and services from wages and salaries paid to people involved in grape and wine production.

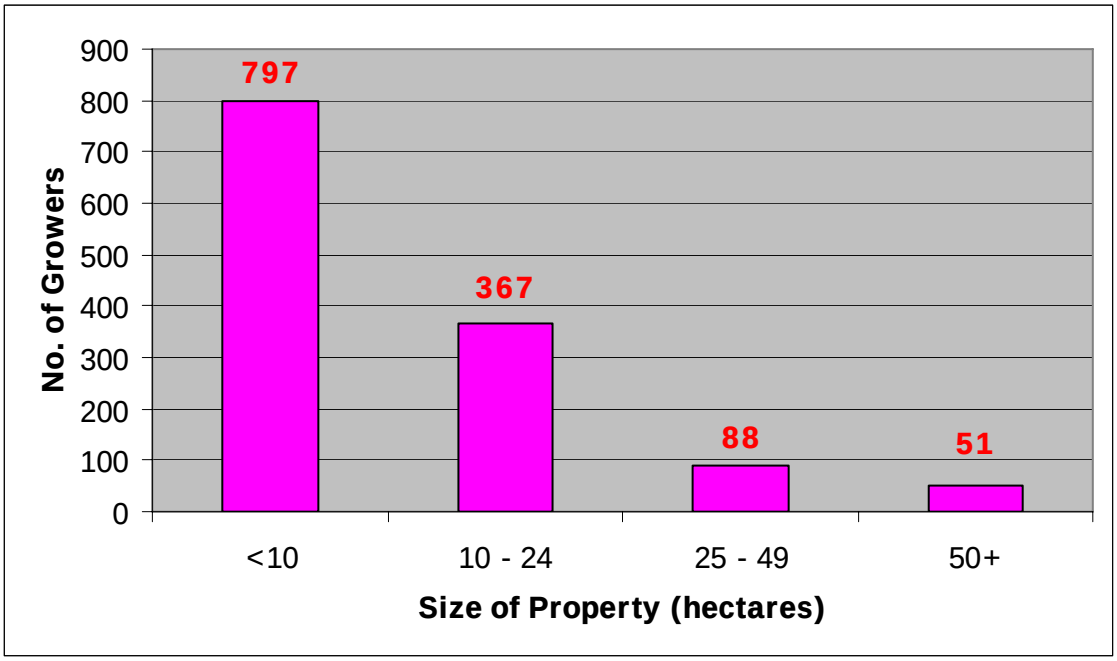
Table 1.9 shows which industry sectors of the Murray Lands have received the greatest indirect impacts from the grape and wine industry, in terms of value added (contribution to GSP), employment (number of jobs) and household income.

Table 1.9: Indirect Impact of the winegrape and wine industry on the Murray Lands Region

Indirect Impact of Winegrapes and Wine On the Riverland	Value Added ($'000)	Employ-ment (No. of jobs)	Household Income ($'000)
Transport & Storage	9,238	245	4,447
Wholesale Trade	8,580	247	4,186
Accom, Restaurants & Cafes	6,727	160	3,186
Property & Business Services	4,782	133	2,318
Food Products	3,793	112	1,857
Wood, paper & publishing	3,417	80	1,614
Grains	3,265	81	1,555
Non-metallic mineral products	2,221	50	1,044
Public Administration & Defence	2,183	67	1,077
Services to Agriculture	1,953	116	1,124
Other sectors	5,554	180	2,766
Total Indirect Impact	51,713	1,472	25,174

The Phylloxera and Grape Industry Board of South Australia reports that there are 1,303 growers in the Riverland. Figure 1.3 indicates the number of growers by property size.

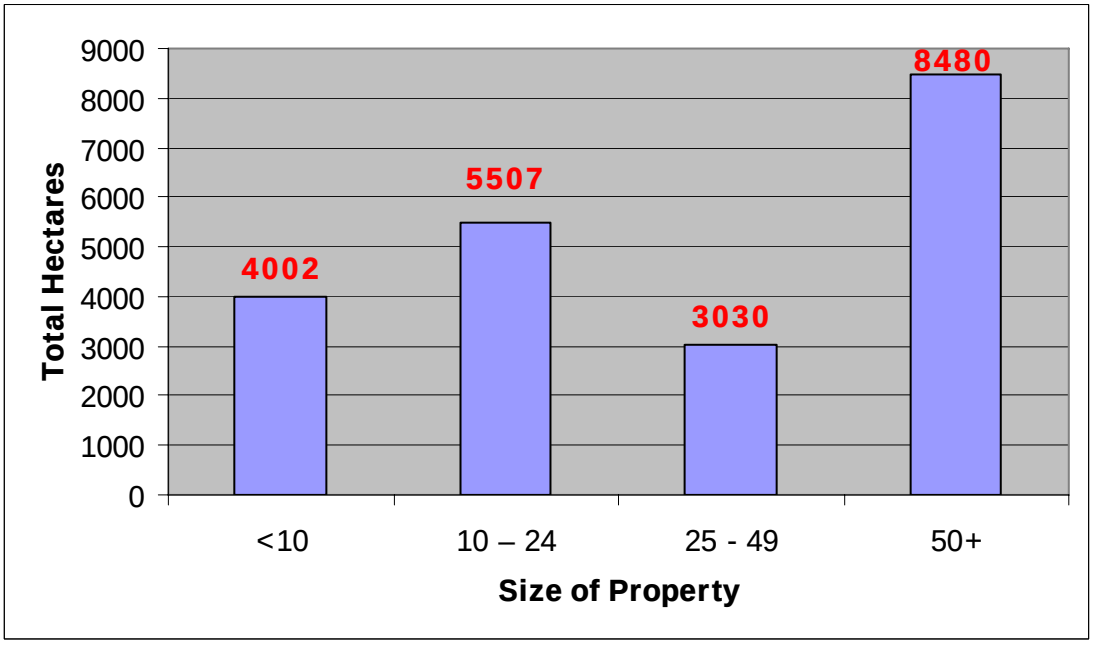
Figure 1.3: No. of Growers in each vineyard-size category in the Riverland



Source: The Phylloxera and Grape Industry Board of South Australia

The Phylloxera and Grape Industry Board of South Australia reports that there is a total of 21,018 hectares of bearing and non-bearing vines in the Riverland. Figure 1.4 indicates the total number of hectares held in varying property sizes.

Figure 1.4: Total vineyard area in each vineyard-size category



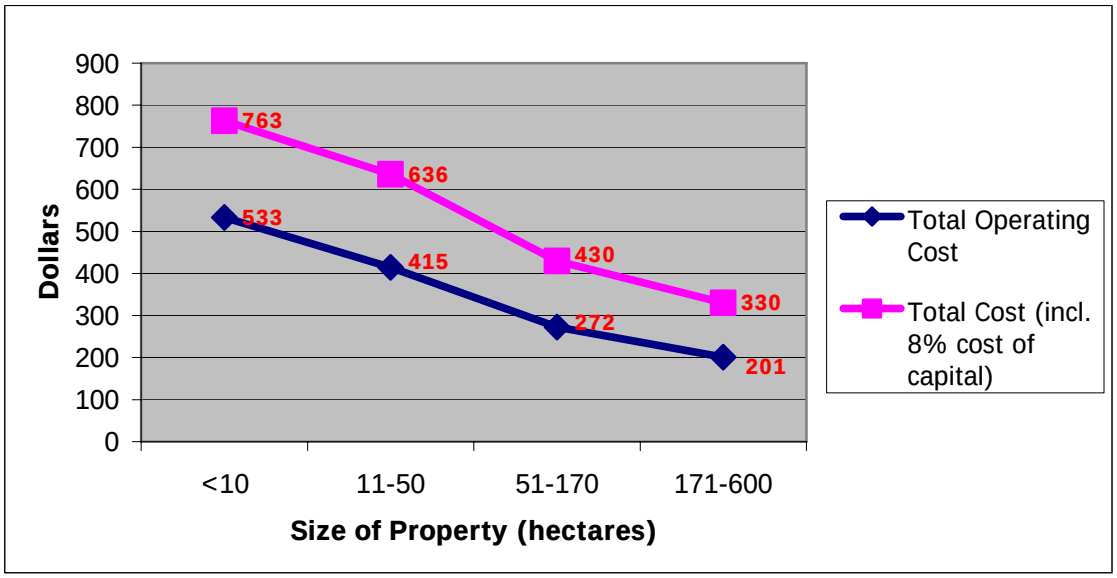
Source: The Phylloxera and Grape Industry Board of South Australia

Of the 1,303 growers in the Riverland, the Phylloxera and Grape Industry Board of South Australia reports that 797 have properties of less than 10 hectares in area. These properties make up a total of 4002 of the 21,018 hectares of bearing and non-bearing vines in the Riverland. This equates to approximately 19 percent.

Figure 1.5 below is a representation of the Cost of Growing data and was complied in conjunction with PIRSA, Riverland growers and representatives of the Riverland Winegrape Growers Association as a specific part of this report. Its purpose is to show the operating and total costs at each of the vineyard-size categories shown in Figures 1.3 and 1.4.

A further detailed analysis of the cost of growing data is contained in Figure 2.5 and Appendix 3.

Figure 1.5: Cost of Growing[2] (per tonne)

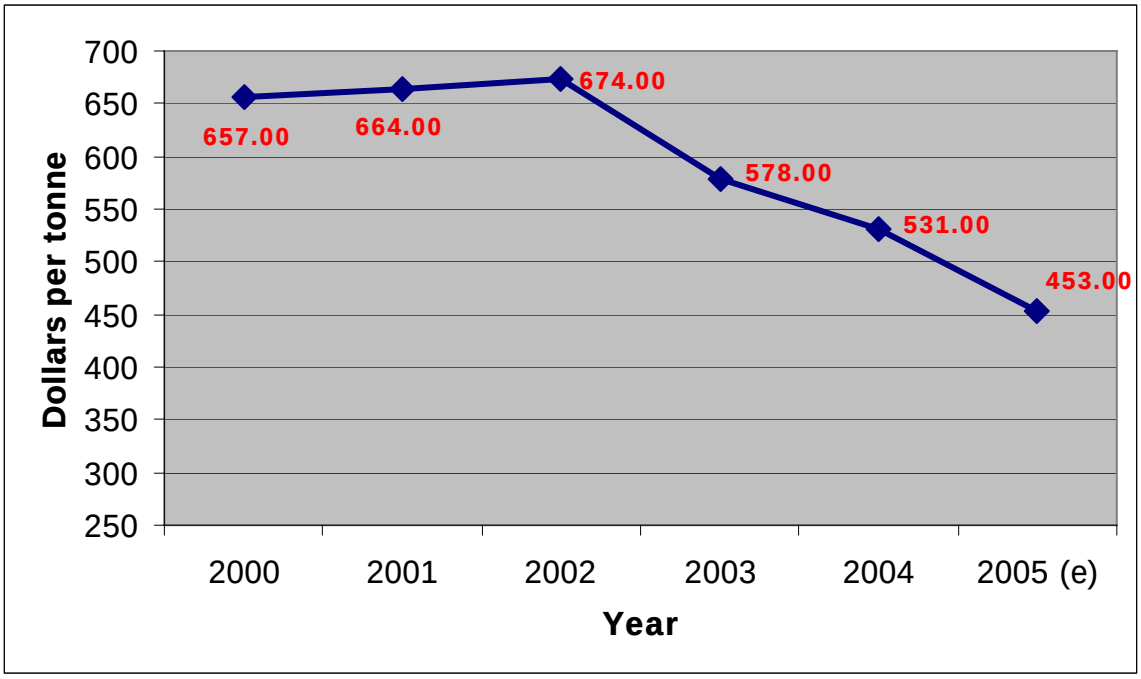


Source: Primary Industries and Resources South Australia

In conjunction with Figure 1.6, this data shows that the smaller independent grower with 10 hectares or less has much higher production costs per tonne than that of the broad acre (171 - 600 hectare) grower and compared with the data in Figure 1.6, a smaller independent grower's total costs of production, including 8 percent capital, is higher than the average price per tonne for the Riverland over the past 5 years.

[2] Cost of Growing data was complied in conjunction with PIRSA, Riverland growers and representatives of the Riverland Winegrape Growers Association as part of this report.

Figure 1.6: Average Price per tonne – Riverland



Source: Primary Industries and Resources South Australia
Note: the 2005 figure is an estimate only.

Figure 1.7 shows, for 1996 to 2004, the growth in winegrape production in the Riverland, the fluctuations in price and the growth then levelling off in total value of production. With the exception of 2002, when yields and prices were both above average, total winegrape revenues have been in the range between $190 million and $230 million per annum. As discussed in Appendix 1 this plateau is expected to continue until between 2008 and 2010, when growth is expected to recommence.

Figure 1.7: Trends in Riverland Winegrape Production – 1996-2004

Source: Phylloxera & Grape Industry Board of SA, *Winegrape Pricing & Utilisation Surveys*

In 2003, of the twenty two largest processing facilities in Australia, defined as crushing more than 17,500 tonnes, eleven of them were located in South Australia, with five of those located in the Riverland. These are shown in Table 1.10:

Table 1.10: Excerpt from top 22 processing Facilities

Rank		Tonnes
1	Berri Estates Winery, Berri (Hardy Wine Co)	127,500
4	Australian Vintage Winery, Loxton (McGuigan Simeon Wines)	70,000
9	Southcorp Wines, Waikerie (Southcorp Wines)	45,000
12	Kingston Estate Winery, Kingston on Murray (Kingston Estate)	34,000
15	Renmano Wines, Renmark (Hardy Wine Co)	26,600

Source: Winetitles, Wine Industry Directory, 2004

These five facilities provided a total of 303,000 tonnes crush, with other facilities such as Angoves and Salena Estate adding further to the total crush carried out in the Riverland.
Each of these Riverland based operations also has significant fermentation and storage capacity, at some 295 million litres and 390 million litres respectively, as shown in Table 1.11.

Table 1.11: Fermentation and Storage Capacity – Riverland

	Fermentation Volume (000 L)	Storage Volume (000 L)
Berri Estates, Berri (Hardy Wine Co)	220,000	220,000
Australian Vintage, Loxton (McGuigan Simeon Wines)	33,000	80,000
Kingston Estate, Kingston on Murray (Kingston Estate)	7,000	30,000
Angove's, Renmark (Angove's)	NA	20,000
Renmano Wines, Renmark (Hardy Wine Co)	23,500	19,500
Southcorp Wines, Waikerie (Southcorp Wines)	10,000	17,000
Salena Estate, Loxton (Salena Estate Wines)	2,163	3,977

Winetitles, Wine Industry Directory, 2004

There has been change recently within the processing operations based in the Riverland. Hardy Wine Company has closed the Renmano facility at Renmark and has increased capacity at its Berri Estates winery in lieu. As part of the restructuring of Southcorp, the company announced that its Waikerie operations would be closed, with the volume to be taken up by its operations in Nuriootpa and Karadoc. Contract crusher Boar's Rock has purchased Southcorp's Waikerie facility, effective from 1 September 2005. A number of the other operations have also had capacity increased recently and it is likely that Angove's Renmark operations may now be included in the top 22 processing facilities within Australia.

The wine produced in the Riverland mainly falls into the bulk and popular premium price categories. A number of the world's leading brands are derived from Riverland fruit. These include Banrock Station, Jacob's Creek, Nottage Hill, Kingston and some lower priced Penfold's range.

While there are some wines from the region that have moved into the super premium categories, this is not high in terms of either volume or value to the region.

Social Outlook

In 2004, the Bureau of Rural Sciences released "A social atlas of Australia's wine regions, 2001/02", commissioned by the Grape and Wine Research and Development Corporation. This atlas provided a comprehensive 'snapshot' of the wine industry and of the social, demographic and socio-economic characteristics of communities within Australian wine producing regions at the statistical local area level.

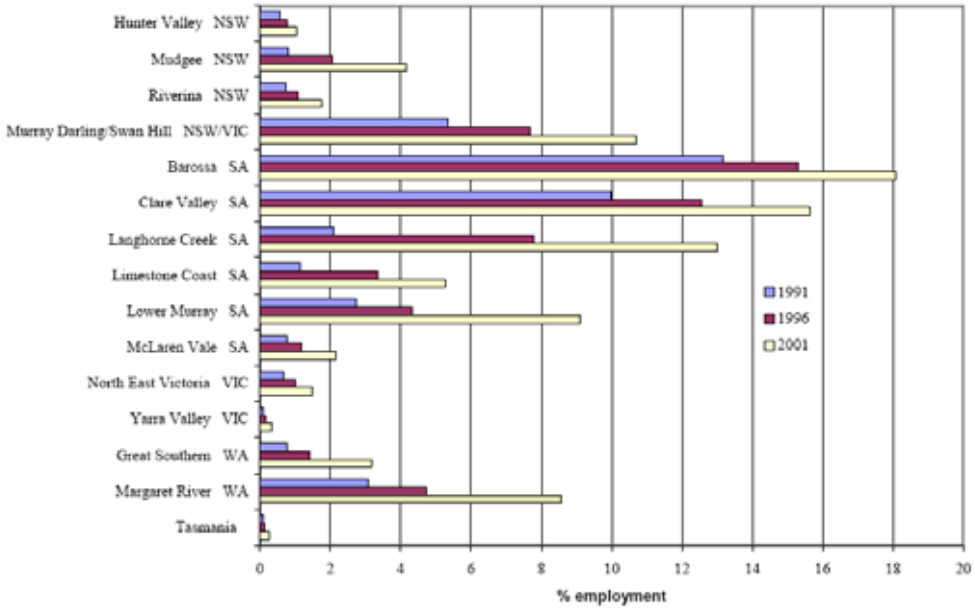
In 2001, there were 30,093 persons employed across Australia in wine manufacturing and grape growing. This was a substantial increase of 20,066 persons from 1991. Eighty-five per cent of the total number of persons employed in wine manufacturing and grape growing were working in South Australia, Victoria and New South Wales.

There was strong employment in wine manufacturing and grape growing in the GI zones of North West Victoria, Barossa, Limestone Coast, Hunter Valley, Lower Murray and South West Australia. Across the wine producing Statistical Local Areas, more than 25 per cent employment in wine manufacturing and grape growing occurred in the small Statistical Local Areas of:

- Swan Hill (RC) – (30.3%, North West Victoria GI zone);
- Barossa (DC) – (28.2%, Barossa GI zone);
- **Berri and Barmera (DC) – (26.3%, Riverland GI zone);**
- Barossa (DC) – (25.2%, Barossa GI zone); and
- Wattle Range (DC) – (25.0%, Limestone Coast GI zone).

Figure 1.8 indicates the growth of the employment in wine manufacturing and grape growing in the ten year period between 1991 and 2001.

Figure 1.8: Proportion of people employed in wine manufacturing and grape growing per designated wine area, 1991–2001



Social Atlas 2004

Between 1991 and 2001, while all designated areas experienced improvements in the unemployment rate, 10 of the 16 of the designated wine areas experienced improvements above the national average. The largest improvement in the unemployment rate over the 10-year period occurred in Murray Darling/Swan Hill (-7%), Langhorne Creek (-6%), Mudgee (-6%) and the Lower Murray (-6%).

The Atlas indicates that lower youth unemployment rates occurred around the designated wine areas, with the Lower Murray having a lower youth unemployment rate than the average for South Australia.

The Atlas also revealed that in 2001, the median individual weekly income range for those employed in wine manufacturing and grape growing within the Lower Murray Zone, within which the Riverland falls, was $500 – 599.
Eleven of the sixteen designated wine areas had median household weekly income ranges below the national median range. The data revealed a strong distribution of Statistical Local Areas with median household income ranges ($600–$999) in the Riverina, North East Victoria, Margaret River, Clare Valley, McLaren Vale and Langhorne Creek. The highest median household weekly income range above the national median occurred in the Yarra Valley ($800–$999). Mudgee and the Lower Murray recorded the lowest median household income ranges below the national median ($500-$599).

2. Issues Affecting the Riverland Wine Industry

2.1. Current Global Market Trends

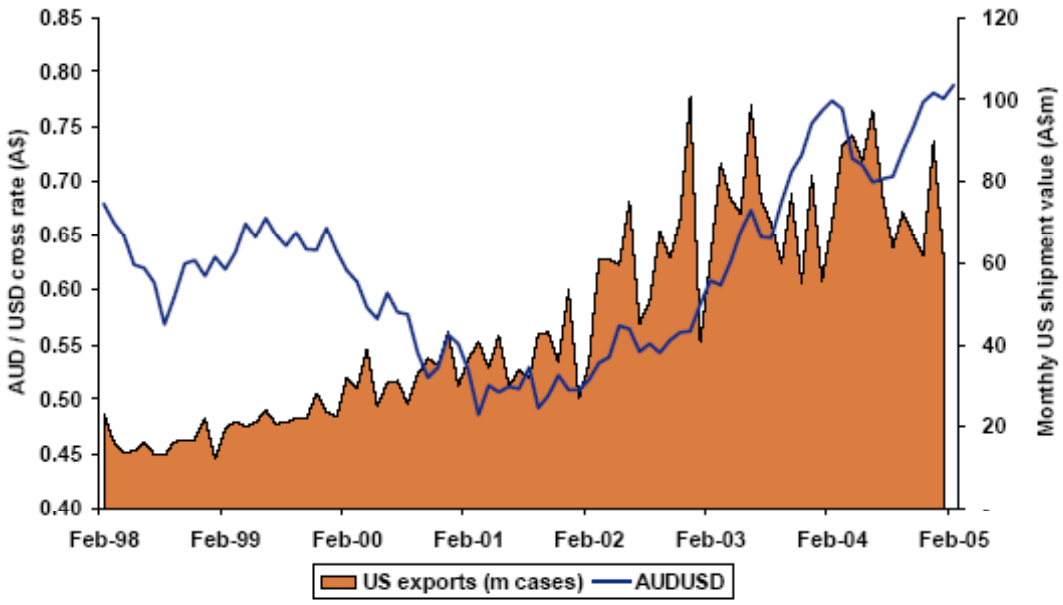
The major themes in wine marketing strategy have been outlined in Section 1. They can be summarised as:

- Corporate aggregation to capture scale economies that will facilitate response to pressures both from increasingly competitive producers and from rapidly aggregating retailers.

- Increasing focus on the high-volume categories, such as popular premium, where there is greater market growth, to allow winemakers to capitalise on the increased scale of operation.

Australian winemakers have had an additional competitive challenge in the form of a strengthening Australian dollar. Figure 2.1 (KPMG 2005) shows that $A strengthening to above $US0.65 was correlated with a plateau of growth in the value of Australian wine sales to the United States. Since it is actually the $US that is weakening against other major currencies (rather than $A strengthening against them), this is creating an advantage for United States producers and for those, such as Chilean and Argentinean producers, whose domestic currencies are pegged to, or tend to move with, the $US. This is similar to the benefit, shown in Figure 2.1, that Australian producers enjoyed while the $A remained below $US0.60 during 2001 and 2002. Most exchange-rate commentators are expecting continued weakness in the $US, so most Australian producers would be expecting the current tough trading conditions to continue.

Figure 2.1: $A/$US exchange rate & value of Australian wine exports to the US



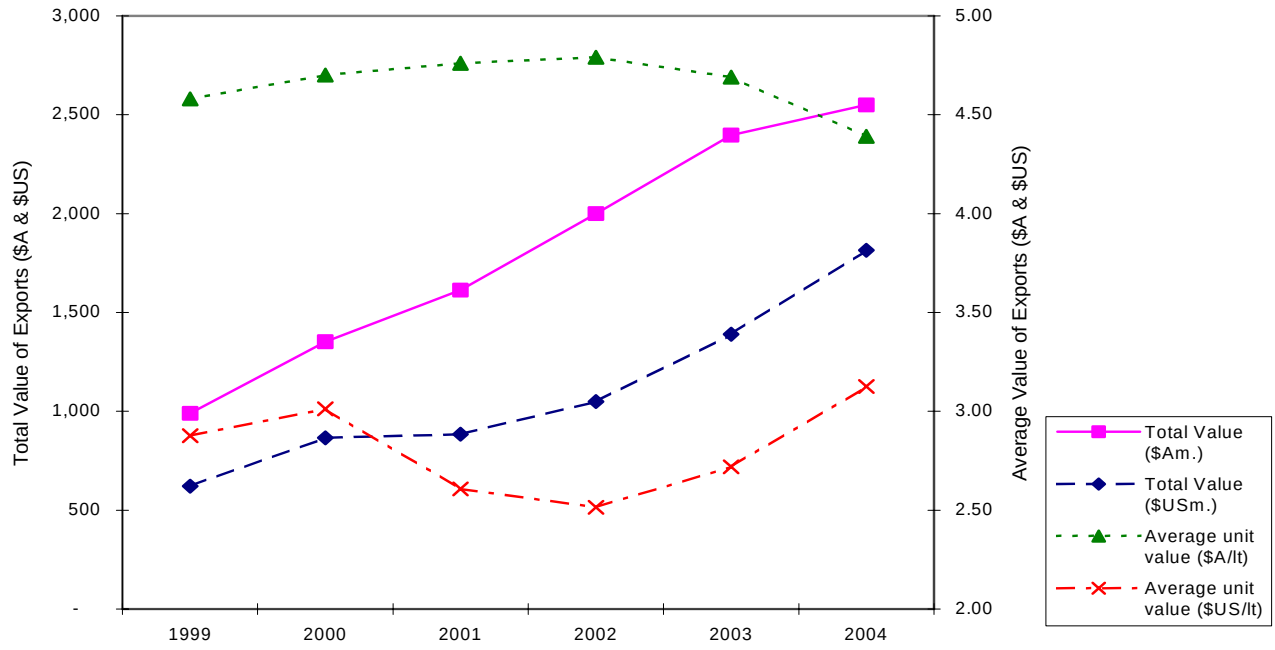
Source: IRESS & Australian Wine Export Council, 'Wine Export Approval Reports'

Source: KPMG, *What will the market let a winery pay for grapes?* ABARE Outlook Conference, 2005.

It is important to note that the increased focus on the volume segments of international markets has not been achieved at the expense of higher-value segments. While growth at the high end has not equalled that at the low end, average export value has not fallen when viewed in $US terms. This is shown in Figure 2.2.

As mentioned above, $US pricing is important, not just because the United States is a large and rapidly-growing market for Australian wine, but because the currencies of most New World exporters move with the $US. The stability of average prices in $US terms indicates that Australian exporters are not shifting down-market as much as meeting the current prices for their existing products in the various destination countries.

Figure 2.2: Average and Total Values of Australian Wine Exports in $A and $US terms – 1999-2004



Source: ABARE (2005a), p. 24; Exchange rates estimated from KPMG (2005).

Cheaper wine prices in the United States, discussed in Section 2.2 below, have caused accelerated growth in per-capita wine consumption, from around 2% to around 8%. This growth is already starting to expand into higher-priced categories, supposedly as new consumers move up-market. The result has been a turnaround in Californian winegrape prices.

This phenomenon provides a reason why leading Australian companies would want to establish a presence at the lower price points in the United States (and other expanding markets): brand recognition and loyalty are clearly important factors in the success of [Yellowtail] and other Australian brands in those markets.

Thus the relatively greater focus of Australian winemakers on the popular premium category, as discussed above, appears rational in current trading conditions. It has mostly taken the form of minimising discounting of existing brands and, instead,

introducing new labels at lower price points. The result has been 32% volume growth in branded popular premium wines ($A2.50-4.99/litre f.o.b.) in 2003-04 (ABARE 2005). Shipments of bulk wine (<$A2.50/litre) also showed strong growth of 22% over 2003-04.

Overall, in the years 2001-02 to 2003-04, while total Australian export volumes continued to grow at 20% p.a., total value grew at 16.5% p.a. in $A terms. This is an impressive performance in an oversupplied and highly competitive global market and suggests that Australian wine exporters are adjusting market strategies to ensure that they remain competitive and viable in those price segments and markets that offer most growth opportunities.

2.2. Winegrape Supply-Demand Coordination

The problem of winegrape supply-demand coordination is one that affects all wine-producing regions and nations. **It has both a short and medium-term dimension.**

The short-term
The short-term problem is driven by seasonal fluctuation in harvest volume and quality. The volume aspect of this is exemplified by the 34% (480,000 tonne) increase in total Australian tonnage between 2002-03 and 2003-04, to nearly 1.9 million tonnes. Often, seasonal differences between regions will smooth the national total, but this has not occurred to any real extent in 2003-04 nor, it appears, in 2004-05.

The medium-term
The medium-term problem is that of coordinating vineyard plantings with expected (but unknown) demand for different varieties in three or more years' time. In fact, Australia is acknowledged as the world leader in demand forecasting and subsequent advice to growers and investors. Until recently, accelerated tax depreciation rates for much vineyard investment biased aggregate plantings on the upside, but that tax concession has now been removed. The Grape & Wine Research & Development Corporation (GWRDC) has funded the development of a global wine supply-demand model.

With good harvests in 2004 and 2005, that oversupply has become a reality. At the start of the 2005 harvest, numerous companies were holding excess stocks of wine and have not been keen to buy grapes unless they have contracts for the resulting wine.

The issue of primary concern made by the Riverland winegrape growers for the current analysis is the low prices being offered on the spot market for grapes without contracts (around $140/tonne for premium Riverland grapes at the time of writing) by wine companies whose strategy is to convert the grapes to bulk wine and sell it as such.

Branded wines, whether in bottle or cask, can only grow as fast as their marketing allows. Their growth is a combination of category growth, exemplified by the United Kingdom which has gone from 12 litres per capita in the late 1980s to over 22 litres

today, and market-share growth. Market-share growth of large brands occurs mainly in mature wine markets, where overall growth has slowed.

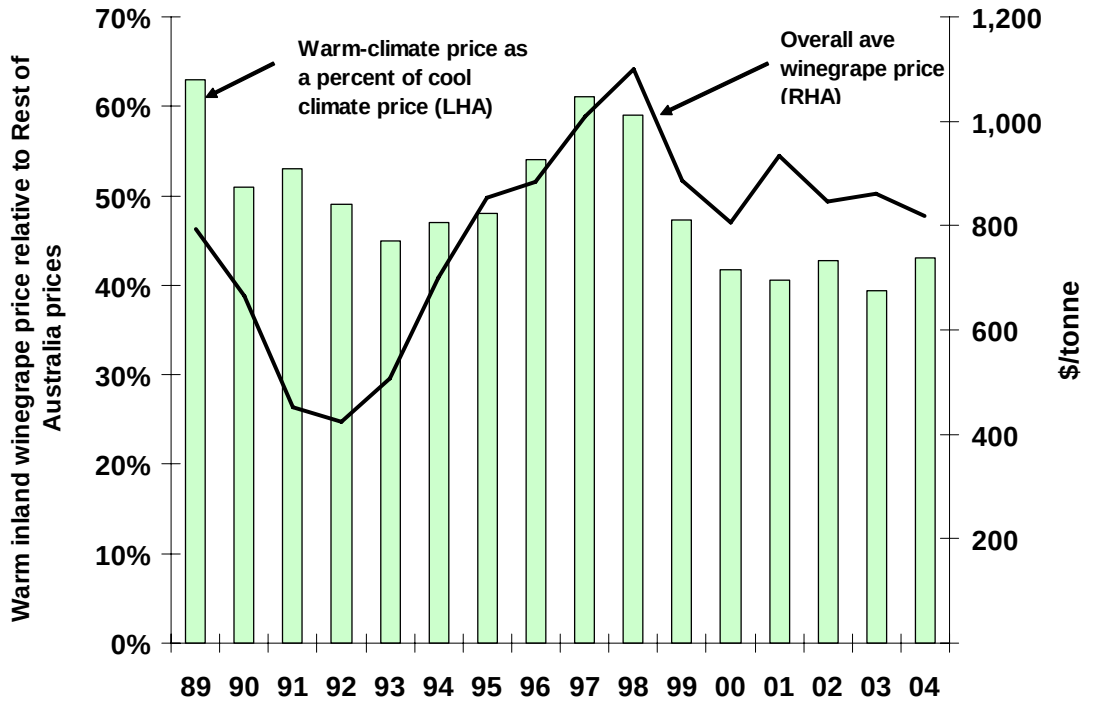
Bulk wine, by its nature, is not usually linked to branded wines. The variability of bulk wine quality means its end use is typically in low-end, private-label wines, such as supermarket home brands, or as short-term, low-priced brands. 'Two-buck Chuck' (the Charles Shaw brand from Bronco Wine Company) is an example of the latter. Bronco Wine Company began buying surplus grapes at very low prices 3 years ago, when California's warm inland-irrigated grape growers were in much the same position as Riverland growers are today.

Bronco launched a new brand, Charles Shaw, at $US1.99 in California ($US2.99 elsewhere), which took off and sold millions of cases. As United States wine consumption has grown, the demand for this brand has shrunk and the surplus of grapes has almost disappeared.

Riverland grower groups have expressed concern about the focus of some wine companies on this bulk market. However, because demand for popular premium wines is relatively stable (around an upward trend) and grape production fluctuates, there is an important role for the international bulk market in absorbing seasonal and cyclical surpluses. Growers point to the potential damage that bulk wine can do to the reputation of their region. This is because wine shipped in bulk can be blended with inferior wines from other countries and sold as a product of Australia, as some wine-importing countries allow such branding if more than 50% of the wine comes from Australia. While there is some substance to this concern, the alternative, in many cases, would be to leave the grapes unharvested because the additional cost of shipping the wine in bottles would make it uncompetitive in its destination market.

The issue of finding profitable markets for bulk wine is especially important to warm regions and not just because most bulk wine is sourced from them. Figure 2.3 shows that, when overall grape prices are high, warm-climate grapes are higher, relative to cool climate grapes, than when overall prices are low. This means that the cyclical fluctuations in the price of warm-climate grapes exceed that in the cooler regions. This is largely because the warm regions, in effect, act as supply buffers for the national wine industry in times of grape shortage and oversupply.

Figure 2.3: Warm:cool grape-price ratio compared with overall grape prices



Source: L. Stanford, Australian Wine & Brandy Corporation, 2005.

The logic behind it is simple: in good seasons, or in times of cyclical oversupply, some of the grapes destined for icon wines are used in ultra-premium wines. This downward redirection of surplus grapes accumulates down through the various price points, with the result that the surplus tonnage of grapes available for bulk and popular premium categories is significantly greater than the oversupply of grapes that were originally destined for those lower price points. Similarly, in times of shortage, some grapes are redirected upwards along the price-point chain, so the relative scarcity is greater at the bottom end. Since it is the warm regions that supply the vast majority of grapes for bulk and popular premium wines, the mismatch between supply and demand tends to be greater for warm-climate grapes.

Without consumer brand recognition and loyalty, the market for bulk wine is more volatile and risky than that for branded wine and therefore wineries and traders look for higher margins for handling it. This requires lower prices than for grapes used in branded wines. The problem is that much of the grape tonnage going into bulk wine in a good season was grown for the popular premium category and is therefore of a quality equal to that of grapes receiving significantly higher prices.

The pricing problem is compounded by the fact that the bulk wine market is essentially a commodity market. Thus, wineries paying too much for the grapes will not be able to compete with those paying less. Moreover, this pattern continues into the popular premium category, as wineries purchase cool-region grapes at warm-climate prices and release superior wines in the popular-premium price range.

The optimal solution to the problem of absorbing seasonal and cyclical grape surpluses will involve a degree of risk-sharing between wineries and growers. To this end, discussions have been held between the Riverland Winegrape Growers

Association and a major wine company about a joint venture to make and market bulk wine. This is a commendable initiative, but it faces two problems. One is a breakdown in communication between the two parties, resulting from the antagonistic price negotiations. The other is a legislative impediment in the form of South Australia's *Wine Grapes Industry Act (1991)*. The Act requires payment by winemakers for grapes according to a pre-defined schedule (one-third by the end of each of the months of April, June and September). Since, in the case of the joint venture, the winery does not own the grapes or the wine, it will not want to be held responsible for grape payments should payment for the wine be delayed beyond that schedule.

These problems, however, are not insoluble. Part of the communication problem arises from asymmetry between, on the one hand, wineries' understanding of growers' costs and business pressures and, on the other, growers' understanding of winery costs and pressures. Inclusion of vineyard and winery cost analysis in the present report will hopefully assist dialogue between the parties. For the legislative problem, there might be a technical solution to do with whether the joint-venture company can be the grape purchaser as specified by the Act. Alternatively, a legislative amendment may be required to facilitate optimal risk sharing between grower and winemaker.

Another strategy for absorbing surpluses and off-type grapes that has been mooted by some in the industry is a re-examination of brandy production. Whether this is a viable option is not assessed in the report.

2.3. Production Costs and Structural Pressures

There are both long and short-term aspects to the issue of production costs. The long-term question with respect to winegrape production was posed at the 2005 ABARE Outlook Conference as *"What will the market let a winery pay for grapes?"* The inference in the question is that any company paying more for grapes of a given quality than its competitors will make its wine products uncompetitive. The short-term question, which applies to periods of oversupply, is *"What is the minimum price at which growers and winemakers can sell their surplus products and still make a worthwhile contribution to costs already incurred?"*

2.3.1. The medium to long-term equilibrium price for warm-climate winegrapes

To address the long-term question first, on the basis of detailed analysis, it has been argued that to retail a wine at $6.99 per bottle, a winery can afford no more than $450 per tonne for the grapes. However, at $7.99 per bottle, a winery can afford $650 per tonne (KPMG 2005). This conclusion is broadly in line with the analysis for the present report, summarised in Table 2.1 and Figure 2.4 below and emphasises the sensitivity of wine pricing to the cost of grapes, that is, the sensitivity of wine industry competitiveness to grape prices.

Those data show the unit costs of making and packaging wine for wineries from less than 500 tonnes to 80,000 tonnes. The costs include grape purchase at $550 per tonne and a wine extraction ratio of 750 litres per tonne at all winery sizes. The data highlight the economies of scale in winemaking and packaging. It is important to note that small and large wineries usually offer significantly different value propositions to

the wine consumer. Via cellar-door and mail-order marketing, most small wineries provide a more extensive hospitality experience. Consequently, it is difficult to compare the "total product" of large and small wineries and this explains why it is possible for small wineries to survive despite significant production-cost disadvantages.

Table 2.1: Per-litre costs of making and packaging wine for wineries of various sizes

			Winery capacity (tonnes)				
	Grape Price	Extraction ratio	500	2,000	5,000	20,000	80,000
Grapes	$ 550	750	0.73	0.73	0.73	0.73	0.73
Winemaking			3.50	1.50	0.75	0.25	0.16
Oak			0.16	0.11	0.08	0.06	0.05
Total cost of winemaking			**4.40**	**2.34**	**1.57**	**1.05**	**0.95**
Packaging			2.78	2.00	1.67	1.11	1.22
Overheads			0.94	0.94	0.94	0.94	0.55
Total operating cost of packaged wine			**8.12**	**5.28**	**4.18**	**3.10**	**2.72**
Producer margin	33.3%	of op. cost	2.70	1.76	1.39	1.03	0.91
Total Cost (including producer margin)			**10.82**	**7.04**	**5.57**	**4.13**	**3.63**

Data sources: (KPMG 2005), Deloitte (2004), various industry sources.

Figure 2.4: Unit costs of making and packaging wine

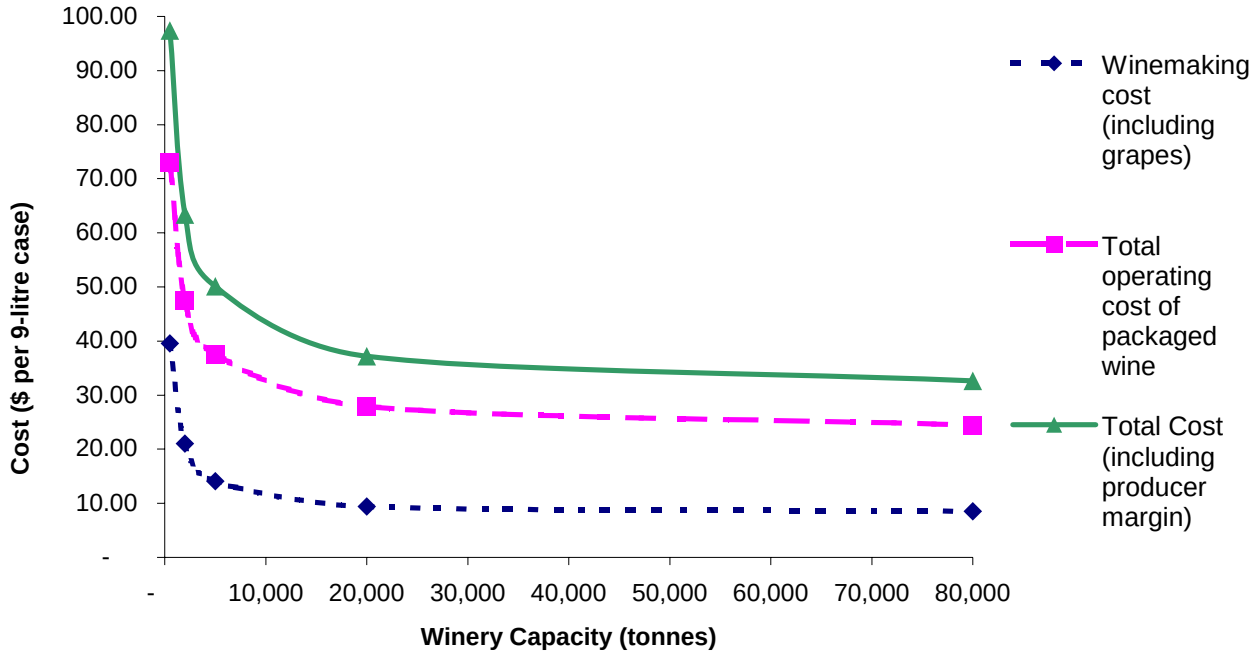


Table 2.2 and Figure 2.5 summarise production costs for premium winegrapes grown in the Riverland at 23 tonnes per hectare. The data for this analysis are highly credible, as they have been sourced from two reliable sources. Data for 10- and 50-hectare vineyards were supplied by growers in a cost analysis process conducted by Rural Solutions SA, an agency of the SA Government. Those for 170- and 600-hectare vineyards were sourced from accounting records of several corporate producers. All analyses are done on a standard profit-and-loss accounting basis, including depreciation costs. The corporate data include direct administrative

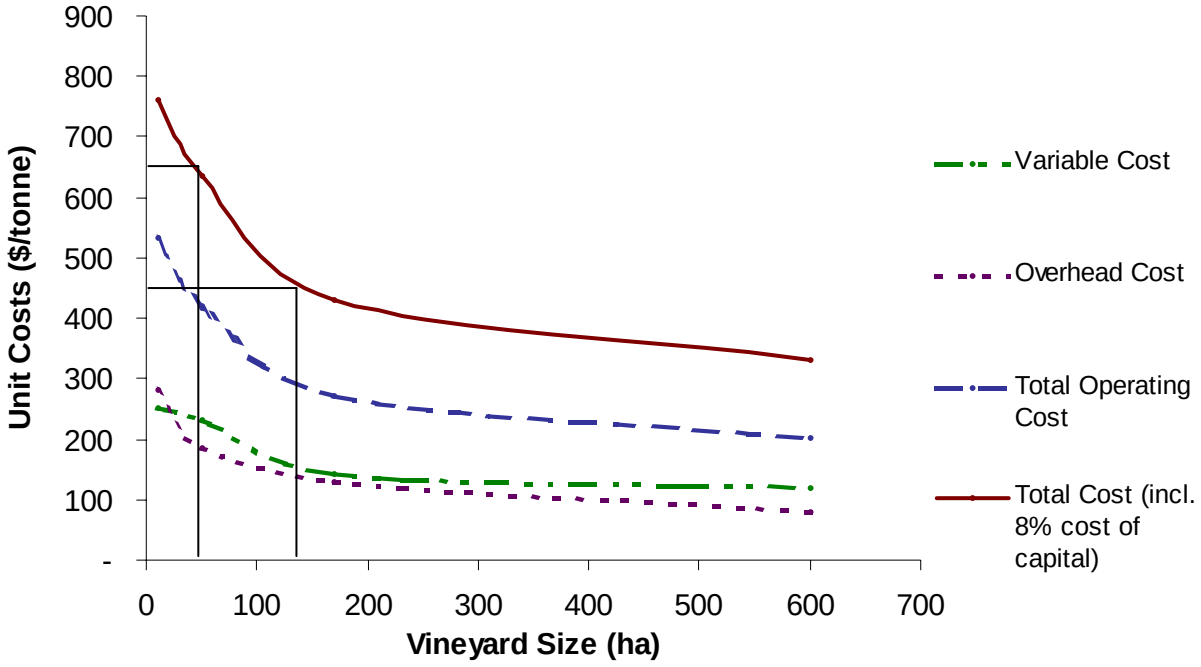
overheads, such as accounting costs, but no allowance for a share of head-office overheads. The corporate capital costs are on a historical-cost basis, whereas those for 10- and 50-hectare vineyards are current development costs. Thus the corporate data are understated relative to the other. The corporate data has been broadly confirmed by comparison to that of a third major corporate, whose average production costs, including allocation of head-office overheads, equates to $248 per tonne for yields of 23 tonnes per hectare.

Table 2.2: Per-tonne Capital and Operating Costs of Riverland vineyards of various sizes – premium-variety grapes grown at 23 tonnes per hectare

Vineyard Costs ($/tonne)	Vineyard Size (ha)			
	10	50	170	600
Capital Cost	2,869	2,758	1,972	1,612
Cost of Capital at 8%	230	221	158	129
Variable Cost	252	231	143	121
Overhead Cost	281	184	129	80
Total Operating Cost	533	415	272	201
Total Cost (incl. 8% cost of capital)	763	636	430	330

As is the case for wine production, the economies of scale are substantial. Figure 2.5, a long-run average cost curve, demonstrates the sensitivity of production costs to vineyard size. It indicates that, to get an 8% return on the vineyard investment at $650 per tonne, the minimum size required is around 50 hectares while, at $450 per tonne, the minimum size increases to about 150 hectares.

Figure 2.5: Per-tonne costs for premium-variety Riverland winegrapes grown at 23 tonnes per hectare



Price Impacts

This explains the current grower concern about the pricing strategies of wine companies: a relatively small increase in sale price of the wine ($7.99 compared with $6.99 per bottle) makes a big difference to the minimum scale for long-term viability of vineyards (50 hectares vs 150 hectares). However, as argued earlier, from the perspective of maintaining their international competitiveness, it is difficult to mount a robust criticism of the marketing strategies of Australian exporters, with the possible exception of particular instances.

One of the Australian wine industry's competitive advantages is its ability to grow grapes to match the winery's requirements for wines aimed at a range of different market segments. To this end, many wine companies have their own vineyards, which are mostly focussed on producing for their highest-value wines where they face greater risks from off-type grapes. However, their preference is to focus their asset-holding on the wine-making and marketing part of the chain, where returns to capital are usually higher. This preference explains the prevalence of out-sourced grape production, especially in warm-climate regions.

The key to ensuring correctly specified grapes from outsourced production is a combination of objective grape-quality measurement (which usually includes assessing the juice or wine) and close liaison between grower and winery representatives during the growing season. The latter is necessary because there is no satisfactory objective measurement for some aspects of grape quality. The "close-liaison" model usually referred to, as "strategic alliance contracting" is increasingly common in agri-food industries because of the problems in satisfying increasingly demanding consumers via complex supply chains.

The intensive dialogue between growers and wineries to ensure that grapes match the latter's specifications is the means by which the Australian industry achieves this competitive advantage, but it imposes significant transaction costs on both parties. It is more efficient for a winery to negotiate with one big grower than with ten small ones. The economies of scale in transaction costs are often as important as those in production cost (per Figure 2.5 above) in encouraging processors to favour bigger and better-performing growers when renegotiating contracts.

There are a number of strategies that growers can select from to help them remain competitive in the winegrape market, despite small vineyard size. These are listed below, but are not explained in detail:

- *Collaborative marketing structures*: Examples include CCW Ltd in the Riverland and Barossa Valley Estates. These structures have two functions: they can help address an imbalance of market power and they can reduce transaction costs for the winery as it can purchase a large quantity of grapes via one transaction. It is often more efficient for growers to monitor the vineyard practices of one another than for the winery to employ grower liaison officers. Often both forms of monitoring are combined, and this requires less intensive grower liaison activity;

- *Syndication of production from numerous farms under one management unit:* Models of this sort are under investigation in the Queensland sugar industry. Moreover, an officer in the Western Australian Department of Agriculture is completing a doctoral thesis on "new generation co-operatives" of which there are numerous successful examples in the United States. These combine the strengths of co-operatives with those of corporate structures. For example, they typically replace the requirement to take all produce from all members with a combination of quality specifications and a payment-for-quality system that parallels that of the client; and the syndication of machinery allows bigger, more efficient equipment to be purchased and round-the-clock operation by the joint owners at critical periods.

- *Property Holding Consolidation:* Some growers may decide to consolidate property and grower holdings in order to take advantage of the economies of scale that have been demonstrated.

These strategies have all been shown to generate advantages to producers in situations similar to those now faced by Riverland growers. Implementing them requires a combination of analytical and negotiation skills, patience and enthusiasm for collaborative endeavour.

2.3.2. The short-term price for warm-climate winegrapes

Section 2.2 draws the distinction between the prices that wineries can afford to pay for branded popular premium wines and those for bulk wines whose function is to absorb seasonal surpluses and off-type grapes. Prices in the $550-650 per-tonne range may well be sustainable for grapes grown to winery specifications under long-term contracts. To make this viable, the industry must find ways of absorbing seasonal surpluses, as these push down the spot price and threaten the markets for both branded and bulk wines, but particularly the latter. Some growers have tended to view this to be a winery problem but, as this analysis argues, it is just as much a grower problem and requires collaborative action to find solutions.

Table 2.3 summarises vineyard and winery costs on full and marginal-cost basis for a 50-hectare vineyard and an 80,000-tonne winery. The winery costs in the full-cost column of Table 2.3 include:

- The full cost of grape production on a 50-hectare vineyard (including 8% return on investment), that is, $636 per tonne;
- The cost of a "liquid liner", which is a disposable bladder inserted into a 20-foot shipping container for transporting the bulk wine overseas; and
- An agent's commission for marketing the wine.

Table 2.3: Full verses Marginal Cost of Bulk Wine Production

Vineyard Costs ($/tonne)	50 hectares	
	Full cost ($/tonne)	Marginal cost ($/tonne)
Capital Cost	2,758	
Cost of Capital at 8%	221	
Variable Cost (Marginal cost = harvesting & freight)	231	61
Overhead Cost	184	-
Total Operating Cost	415	61
Total Cost (incl. 8% cost of capital)	636	61

Winery Costs ($/litre)			80,000 tonne capacity			
	Lt/tonne Lt/container		Full cost ($/tonne)	Marginal cost ($/tonne)	Full cost ($/litre)	Marginal cost ($/litre)
Grapes		750	636	61	0.85	0.08
Winemaking			120	120	0.16	0.16
Oak			29	29	0.04	0.04
Total cost of winemaking			**784**	**210**	**1.05**	**0.28**
Liquid Liner for 20-foot container	$ 4,500	22,000	153	153	0.20	0.20
Overheads			413		0.55	
Total operating cost of bulk wine			**1,350**	363	**1.80**	0.48
Producer margin	33.3% of oper. cost		450		0.60	
Marketing cost	10.0% of oper. cost		135	135	0.18	0.18
Total Cost (including producer margin)			**1,934**	**498**	**2.58**	**0.66**

Source: PIRSA

The issue of concern to wineries is that, if they pay more than their competitors do for grapes of the same quality, the resulting wine will be difficult or impossible to sell at a profit. In this sense, it *is* a winery problem, but the way they respond to it is either to push down their own offer price or not to buy grapes that they would have bought in a more stable market. Either response hurts growers as a group and thus growers have a vested interest in an effective solution to the oversupply problem.

To understand the options for solving the problem, it is useful to refer to a case study. The grower needs to get $636/tonne to get a satisfactory return (8% on capital and $60,000 manager's salary). As mentioned above, there is reason to believe that this price might be sustainable for branded popular premium wines. If, in a particular season, there are more grapes than can be sold through branded wine channels, the balance of grapes will have to go into bulk wines.

Table 2.3 shows that, for the grower and the winery to both get satisfactory returns on the sale of bulk wine the price would need to be $2.58 per litre ex winery door. This price is not often achieved for warm-climate wines, particularly in oversupplied seasons. Thus, either or both parties would have to accept less than a full return on production. If the grower has sold all of his/her "normal crop" at $636/tonne or above, he/she will have covered all costs and received an 8% return on capital. This means that any price that does more than cover the marginal cost of harvesting and transporting the grapes will increase the profit level. Table 2.3 shows that the marginal cost is $61/tonne for a 23-tonne crop. This includes:

- $400/hour for the harvester (including operator) and hire of two gondolas;
- $35/hour each for two tractors and drivers to haul the gondolas to the truck; and
- $15/tonne freight to the winery.

Similarly, the winery might have covered all overhead costs by processing the "normal harvest" volume expected. Its marginal costs, including Liquid Liner and marketing, are around $437/tonne excluding the $61/tonne for grapes. That equates to 58 cents/litre. The problem is that the winery will not build the excess capacity to process surplus grapes unless there is a reasonable likelihood of profits that would compensate it for the fact that in normal and drought years that capacity will lie idle.

The relevant points are that any price above 66cents/litre for the additional wine starts to add profits and that it is reasonable that the winery might expect first call on those profits. In fact, several things complicate the negotiation. Growers will be concerned about whether the wine will be held over and put downward pressure on prices in the following year. It is normal for wineries to hold stocks, but the concern is about excess stocks. Wineries, on the other hand, face the risk of a collapse in the price of bulk wine or of not selling the wine for other reasons.

The resolution to these complications is to extend, to the surplus grape market, the strategic alliance concept discussed above in relation to solving the quality problem for branded wines. In this case the key issue is risk sharing. Section 2.2 explained the joint venture approach under discussion in the Riverland and there are other options.

The Boar's Rock winery in the Langhorne Creek region, in effect, offers a wine making and marketing service to growers. This includes crushing the grapes, making the wine, recommending a blending and marketing strategy and implementing that strategy. One grower has reported receiving a net $600/tonne in 2004 for surplus grapes disposed of in that way.

3. Scenario Analysis

The scenario analysis is undertaken to **estimate the impacts on winegrape pricing, production and total value of two differing scenarios**.

- Base Case
- Potentially achievable

The "base case" assumes reasonably conservative demand growth for Australian wine and no effective resolution of the issues raised in this report. Consequently grape prices are conservative. The "potentially achievable" scenario assumes more buoyant, but realistic, demand for wine, as well as effective and fairly rapid resolution of the issues raised.

Before discussing the scenarios in detail, it is useful to note evidence of possible under-investment in the grape and wine industry in the Riverland. This could constitute an additional issue to be addressed in regional-level strategic planning.

ABARE (2005) notes that vineyard plantings have been significantly less in the Riverland than in Sunraysia and the Riverina, particularly the former. Total area of winegrapes in the Riverland has grown at 10% p.a. since 1998 and 4.4% since 2001. The corresponding growth rates for the Sunraysia region are 13.7% and 7.4%. Accordingly, ABARE has projected slower growth in the Riverland than in the other warm-climate regions in the period to 2010. In the base-case scenario, projected tonnage growth in the Riverland follows ABARE's assumption of greater caution in planting decisions. This may turn out to have been prudent – simply demonstrating the Riverland's better-informed decision-making shown in other aspects of grape production. On the other hand, Australian exports of popular premium and bulk wines (that is, those under $A5 per litre f.o.b.) have been increasing at 19% p.a. by volume since 1995 and at 24% p.a. since 2000, so there is reason to believe that the current oversupply will soon turn to shortage. Senior wine company managers have commented that the Riverland is the best place to grow warm-climate grapes in Australia, but that it is easier to develop large vineyards in the Riverina and Sunraysia.

Winemaking capacity in the Riverland in 2005 is estimated at 350,000 tonnes (Winetitles 2004 and personal communication with senior industry managers). This compares with harvests of 440,000 tonnes in 2004 and an estimated 460,000 tonnes in 2005 (ABARE 2005). It appears that significant quantities of grapes are trucked to Sunraysia and the Barossa Valley for processing. Moreover, very little of the wine made in the Riverland is bottled there. This is probably because wine is cheaper to transport in bulk than in bottles.

This report does not assess the extent or causes of the apparent under-investment, but notes that an assessment of this issue may make a worthwhile contribution to strategic planning for longer-term economic development.

See Appendix 1 for these two scenarios.

4. Potential Strategies

The role of the South Australian Government, in addressing the current grape oversupply issues, must be viewed in the context of the joint wine industry and government partnership which, through the joint wine industry and Government partnering strategy, *"Wine: A Partnership 2005 – 2010"*, has clearly defined the roles of both industry and government.

In line with Objective 1 of *"Wine: A Partnership 2005 – 2010"*, the South Australian Government, in conjunction with grape growers and wine producers, will review South Australia's *Wine Grapes Industry Act (1991)* to ensure that it provides a responsive business and regulatory environment.

Government and the wine industry, through the South Australian Wine Industry Council will continue to monitor grape pricing trends for all South Australian regions.

A representative of the Riverland wine grape industry will be invited to join the South Australian Wine Industry Council to ensure that the Riverland industry has a direct voice to Government through the Ministers and other wine industry leaders that sit on the Council.

Strategies that may assist grapegrowers will need to be led by the wine industry on a local basis. The potential strategies that may assist grapegrowers have been documented in section 2.3.1, and are:

- *Collaborative marketing structures*: These structures have two functions: they can help address an imbalance of market power and they can reduce transaction costs for the winery as it can purchase a large quantity of grapes via one transaction. It is often more efficient for growers to monitor the vineyard practices of one another than for the winery to employ grower liaison officers. Often both forms of monitoring are combined, and this requires less intensive grower liaison activity;

- *Syndication or consolidation of production from numerous farms under one management unit:* There are numerous ways in which this can be achieved and these are currently under investigation in the Queensland sugar industry. They can include:

    - Assigning management of the vineyard to an external manager. One prominent Riverland citrus grower now manages around 65 other citrus properties on behalf of their owners, many of who continue to live on the property.
    - Leasing or selling numerous vineyards into a trust or company in which the participants have shares, then employing a manager to run the business.

- “New generation co-operatives” may have a role. The Western Australian Department of Agriculture has sponsored detailed analysis of them, as there are numerous successful examples in the United States. They combine the strengths of traditional co-operatives with those of corporate structures. For example, they typically replace the requirement to take all produce from all members with a combination of quality specifications and a payment-for-quality system that parallels that of the client; and

- Syndication of machinery allows bigger, more efficient equipment to be purchased and round-the-clock operation by the joint owners at critical periods.

- *Property Holding Consolidation:* Some growers may decide to consolidate property and grower holdings in order to take advantage of the economies of scale that have been demonstrated.

These strategies have all been shown to generate advantages to producers in situations similar to those now faced by Riverland growers. Implementing them requires a combination of analytical and negotiation skills, patience and enthusiasm for collaborative endeavour.

APPENDICES

APPENDIX 1: Scenario Projections

1.1. Basis for Scenario Projections

Figures A1.1 to A1.3 show trends, from 2002 to 2005 (projected) in the volume, value and average value of exports to each of the largest 5 export markets for Australian wine. The countries are the same over the period, but Canada has taken third place from New Zealand. All markets are showing growth in volume, but it is clear that the United Kingdom and the United States represent almost 66% of the total, with the other three almost equal. The five countries account for about 84% of the total exports in volume and value. In value terms, the United Kingdom had a downturn in 2003, but has recovered in 2004. Canada continues to grow in value, while NZ and Germany are almost flat. The value per litre chart shows the real story; as exports have grown, the Australian-dollar value per litre has declined in all markets. This is partly a result of strengthening of the $A, but also a result of increased competition, particularly from countries whose currencies have weakened with the $US (the United States, Chile and Argentina).

Figure A1.1: Volume of Australian wine exports to 5 major destinations, 2002-2005

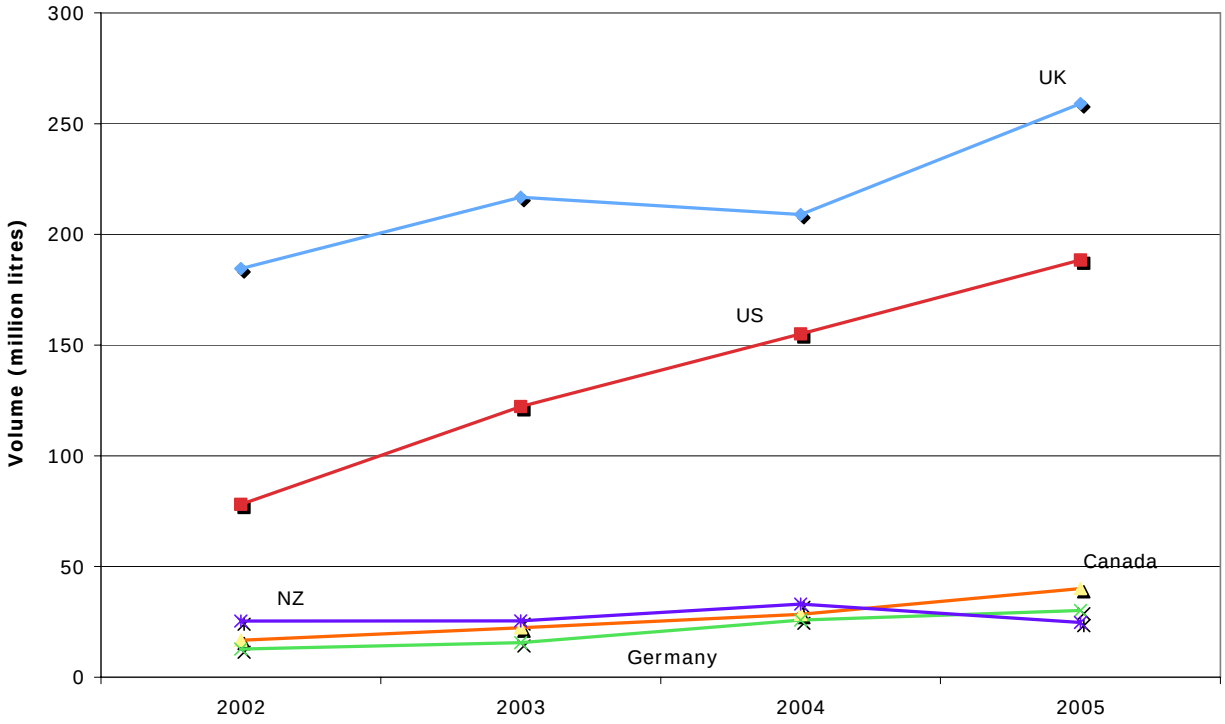


Figure A1.2: Value of Australian wine exports to five major destinations, 2002-2005

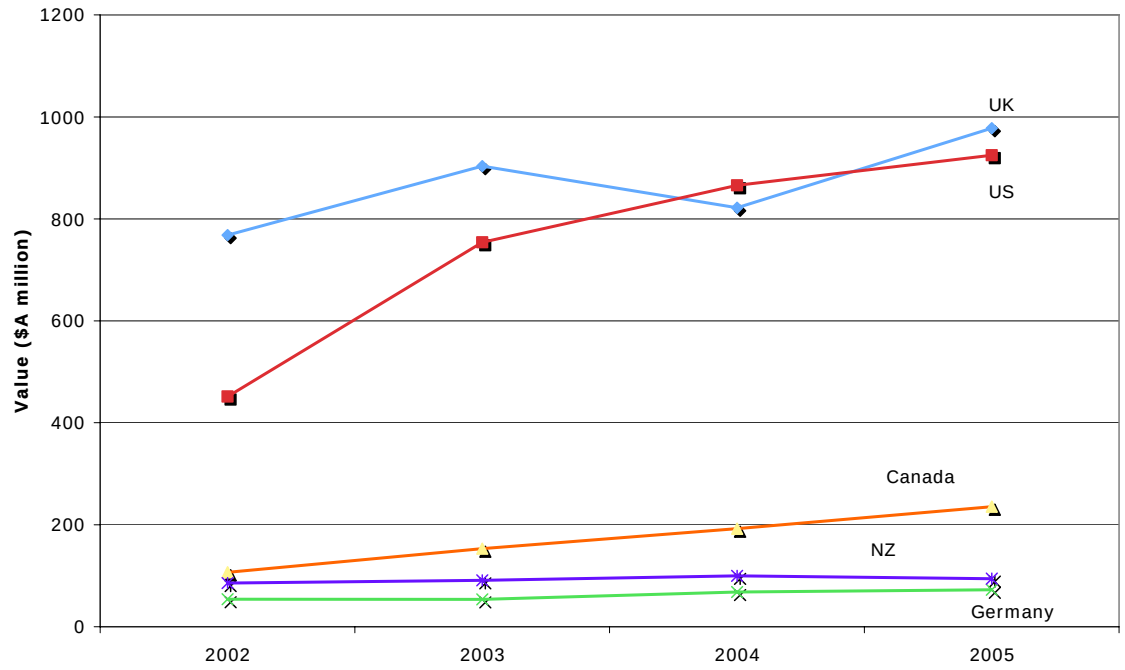
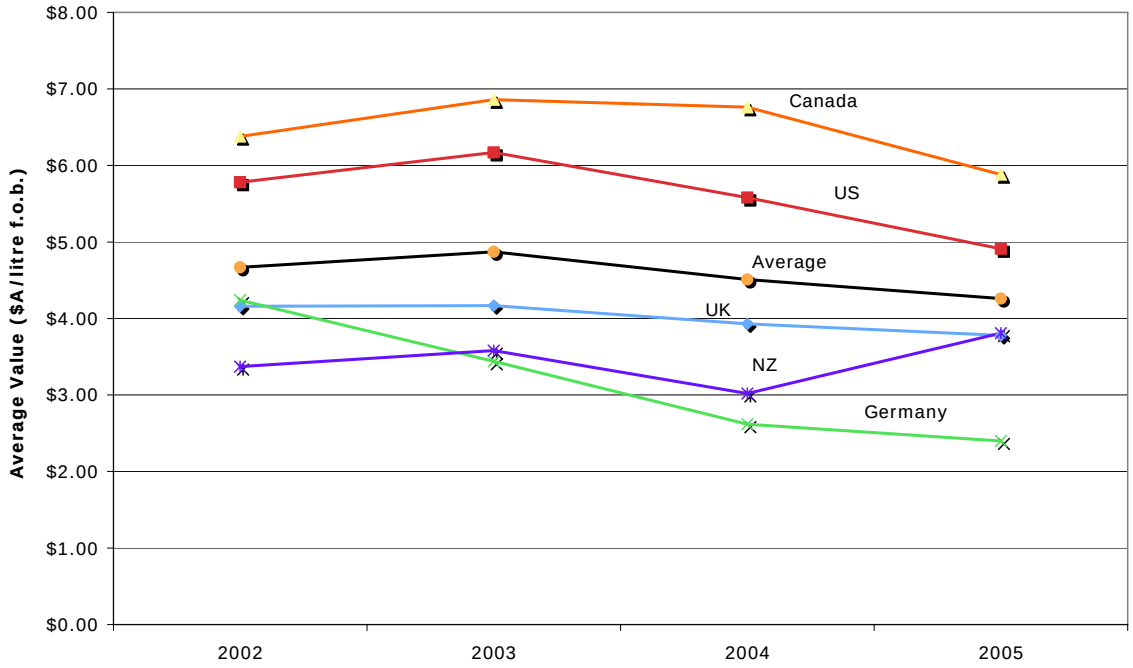


Figure A1.3: Average Value of Australian wine exports to five major destinations, 2002-2005



The question is, what will the next 5 years bring in each of these key markets? It should be noted first that the United Kingdom and United States will continue to be the largest export markets followed by Canada. It is probable that New Zealand's position will be taken by Netherlands, Denmark, or Japan in terms of value, because New Zealand does not have much more room for volume growth.

Some of the changes will depend on the marketing strategies of the major Australian wine companies and some will depend on global competition.

The following projections include both an optimistic and a pessimistic scenario in each market. These projections are combined with those of the Australian Bureau of Agricultural and Resource Economics (ABARE) to form the basis for the scenarios presented in this report.

The United Kingdom

The United Kingdom is likely to remain the top or second top Australian market with volume increasing as per the last few years, but value decreasing.

- **Optimistic**: Volume increases maintained over the next five years at the same rate. Value per litre remains above $3.50. This would occur if Australia is able to grow its major brands at above market rate growth and not have to switch wine into lower price points to maintain growth. This is a relatively likely scenario, because the United Kingdom market is growing, Australia has a strong position, and major wine companies are expending increasing promotional dollars, and the dollar has remained low compared to the pound.

- **Pessimistic**: Volume increases, but slows relative to the last four years by 50% (one half the linear increase). Value drops below $3.50 to $3.25 per litre. This is less likely, but could occur if the Australian dollar gains strength to the pound. Higher dollar prices would reduce margins initially, but eventually force wines to come down in price to maintain volume. This could also occur if the US dollar remains weak to the pound and encourages more American exports to the United Kingdom (which have been the fastest growing of all exports into this large market).

The United States

The United States will continue to be the largest market for Australian wine in volume and value for the next 5 years. Per-capita consumption has begun to grow in the United States after 2 decades of almost flat growth, that is, from around 2% to around 7% growth. Popular premium and premium wines are growing, with the mid-range super premium and jug wines more stable. Ultra premium and icon wines continue to grow, but will not have major effect on total sales or value.

- **Optimistic**: The volume of exports increases at the same rate as the last four years. This is likely as the total United States wine market is experiencing growth of 7% a year. The value exports per litre remains above $4.50 a litre. This is harder to predict, as it will be affected by exchange rates and competition from Italy, Chile and South Africa. Australia will maintain sales growth through good promotion, brand building, and by large United States companies bottling and selling their own Australian brands.

- **Pessimistic**: The volume of exports slows by 25% over the optimistic, but value falls to $4.00 per litre. It is possible that United States economic patriotism could rise and 'buy American' campaigns could affect sales. Increasing weakness of the US dollar would force wine companies to aim at lower price points to grow volumes, while losing margin to maintain current higher-priced brands. This would then force grape prices downwards.

Canada

The Canadian market will never rival the United States or the United Kingdom, but will continue to be a strong third place market. Australian wine is now growing in Quebec, the second largest province, where it has a very small share. Growth will slow slightly in Ontario and British Columbia, the largest two provinces, but overall the outlook is positive.

- **Optimistic**: Volume growth at the same pace as the last 4 years, with value growth not deteriorating as quickly. Canada has the second highest value per litre of all export markets, but is likely to fall to near $5.25-$5.00 over the next four years. This is due to the need to gain volume, especially in Quebec, which is a low value per litre market.

- **Pessimistic**: Volume growth slows 25% compared to the optimistic and value falls below $5.00 per litre. This, as in the above, depends partially on the exchange rates, which have seen the Australian dollar strengthen slightly (not as much as against the United States, but more than against the pound or Euro). Australia is also facing strong competition from South Africa in its normal price points, but not at the lowest ones.

New Zealand

New Zealand has dropped from the third to the fourth largest export market and will likely fall behind Germany over the next 5 years. New Zealand may not grow significantly, as both the population and the wine category remain relatively stable. Much of Australia's exports to NZ are lower end popular premium wines and bulk wine to be sold in either cask or bottle in New Zealand. New Zealand's higher cost of production means it will never satisfy its own market for popular and premium-priced wines.

- **Optimistic**: Volume will stay about level with the last year. There is unlikely to be much growth. If there is, it will be less than 10% per year. Value will remain at current levels of about $3.50-$3.80 per litre. This is based on Australian brands focusing on brand building in the face of increasing lower-priced imports from Chile, Argentina and South Africa.

- **Pessimistic**: Volume falls by 10% per year as imports of other wines take the lower end of the market from Australia. This is less likely than the optimistic scenario due to the strong presence of Australian wine and wine companies in the NZ market. Value drops to $3.00 per litre or a bit lower as companies reduce prices to maintain market share in the face of increasing competition.

Germany

In many ways Germany is a wild card. It is a low priced market, as seen in the value per litre chart. However, it is a huge market where Australia has a relatively low share and low levels of awareness. Both of these will grow over the next 5 years. However, the German wine drinkers seldom drink above the premium level, so there is little likelihood of growth in the wine category or in the price level.

- **Optimistic**: Growth continues at the slow and steady pace of the previous 4 years and the ongoing loss of value per litre halts at the current level. This would be due to exchange rates remaining relatively constant and Australia continuing to push into the popular premium and buyer's own-brand segments. There is little likelihood of growth in higher price points.

- **Pessimistic**: Growth slows due to increasing competition from Europe and the New World. Sales increase at 50% of the rate in the previous 5 years. Value per litre shrinks below $2.00 to $1.75 per litre, which is about as low as it could be with a combination of branded and bulk product.

Other countries

There is a possibility that the markets from six onwards will increase as Australian wines are better promoted and efforts in the countries to gain share begin to work. The scenarios below take the sixth through tenth countries as a block for the optimistic and pessimistic outlooks.

- **Optimistic**: Total volume sales of 52 million litres (in 2004) double over this period. Value sales of $215 (in 2004) million grow by 75%. These are European countries and this scenario is likely as long as the $AUD stays weak against the Euro. Any weakening of the Euro would advantage countries like South Africa, Argentina, and Chile over Australia. Australia is growing quickly in each of these countries and should continue. Value growth is likely to grow at a lesser rate due to competition and growth in the relatively low value segments.

- **Pessimistic**: Total volume grows by 50% over this period and value by 30% due to weakening of the Euro and strong competition from both European and New World competitors.

1.2 "Base Case" Scenario

Tables A1.1 and A1.2 below show the volume, total value and average price of winegrapes grown in the Riverland. Table A1.1 shows actual data for 1996 – 2004 in nominal terms, that is, Average Price and Total Value are not adjusted for inflation, but are summaries of data as they appear in the Phylloxera Board annual Utilisation Surveys.

Table A1.1: Actual volume and value of Riverland winegrapes 1996-2004 (nominal values)

	Actual (PGIBSA Utilisation Survey)								
	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Harvest ('000 tonnes)	219	187	234	259	294	327	434	369	440
Total Value ($m.)	109	115	161	194	191	215	292	213	234
Average Price ($/tonne)	500	617	687	750	652	658	674	578	532

Table A1.2 shows the same data as Table A1.1, but expressed in real terms. That is, Average Prices and Total Values are adjusted for inflation, using 2004 as the base year. This means that the prices and values for Years 1996 to 2003 are converted to 2004 dollars to give a better indication of how those figures compare with the present (especially against present-day costs). Table A1.2 also shows ABARE projections to 2010 and PIRSA projections to 2015 (in real terms) for the base-case scenario. All subsequent data in this Section are expressed in real terms.

Table A1.2: Actual volume and value of Riverland winegrapes 1996-2004 compared with projections under the "base case" scenario 2005-2015 (real values)

	Actual (PGIBSA Utilisation Survey)								
	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Harvest ('000 tonnes)	219	187	234	259	294	327	434	369	440
Total Value ($m.)	131	135	186	227	218	236	310	219	234
Average Price ($/tonne)	598	722	795	875	740	722	715	594	532

	Projected Production (ABARE)						Projected Production (PIRSA)				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Harvest ('000 tonnes)	459	462	471	482	493	505	523	543	562	583	603
Total Value ($m.)	217	204	201	213	220	230	251	275	299	310	321
Average Price ($/tonne)	473	442	426	441	447	456	479	507	531	532	532

The "base case" is based on a combination of Professor Lockshin's "pessimistic" scenarios above and the modelling of ABARE, which is the most comprehensive modelling of national wine and winegrape supply and demand available[3]. ABARE's approach is reasonably conservative, and the PIRSA predictions for 2011 – 2015 follow the conservative approach of both sources in the "base case".

[3] It is important to record the collaboration of the Australian Wine and Brandy Corporation and the State-based organisations, such as the Phylloxera and Grape Industry Board of SA, in providing data and analysis on supply and demand factors.

ABARE predicts national oversupply of red grapes, particularly Cabernet Sauvignon to continue until 2007, when they expect their red-grape price indicator to bottom out at $401/tonne in real (inflation-adjusted) terms, or $421/tonne in nominal terms. The prediction for white grapes is $552/tonne (real) or $579/tonne (nominal) in 2007.

Figure A1.4 summarises their grape price projections.

Figure A1.4: ABARE Australian grape price indicators – actual & projections to 2010

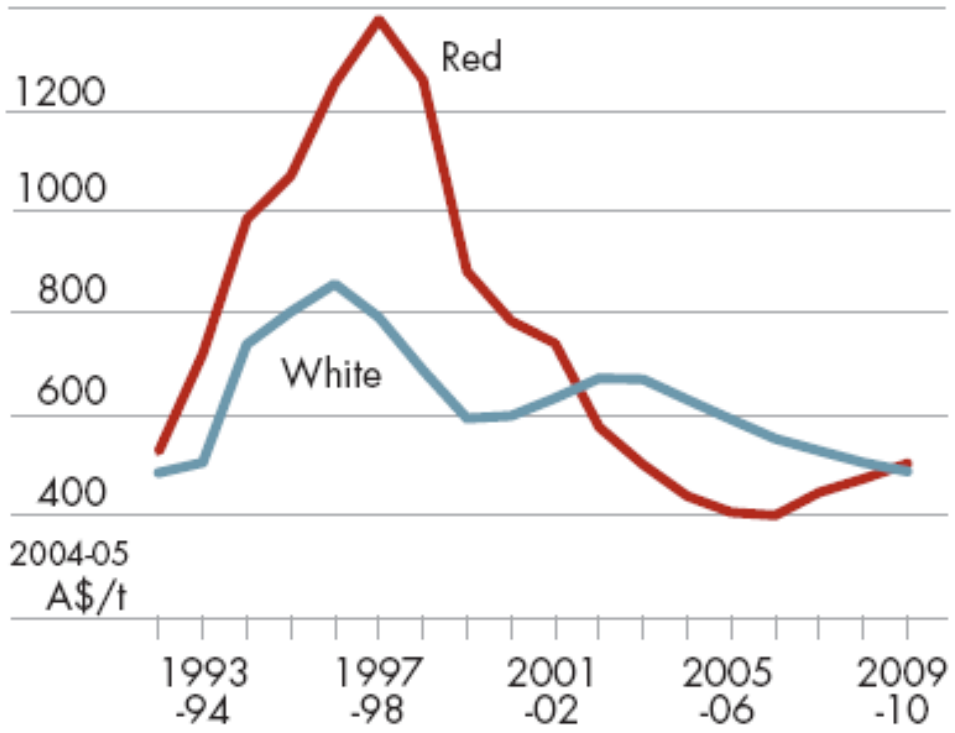
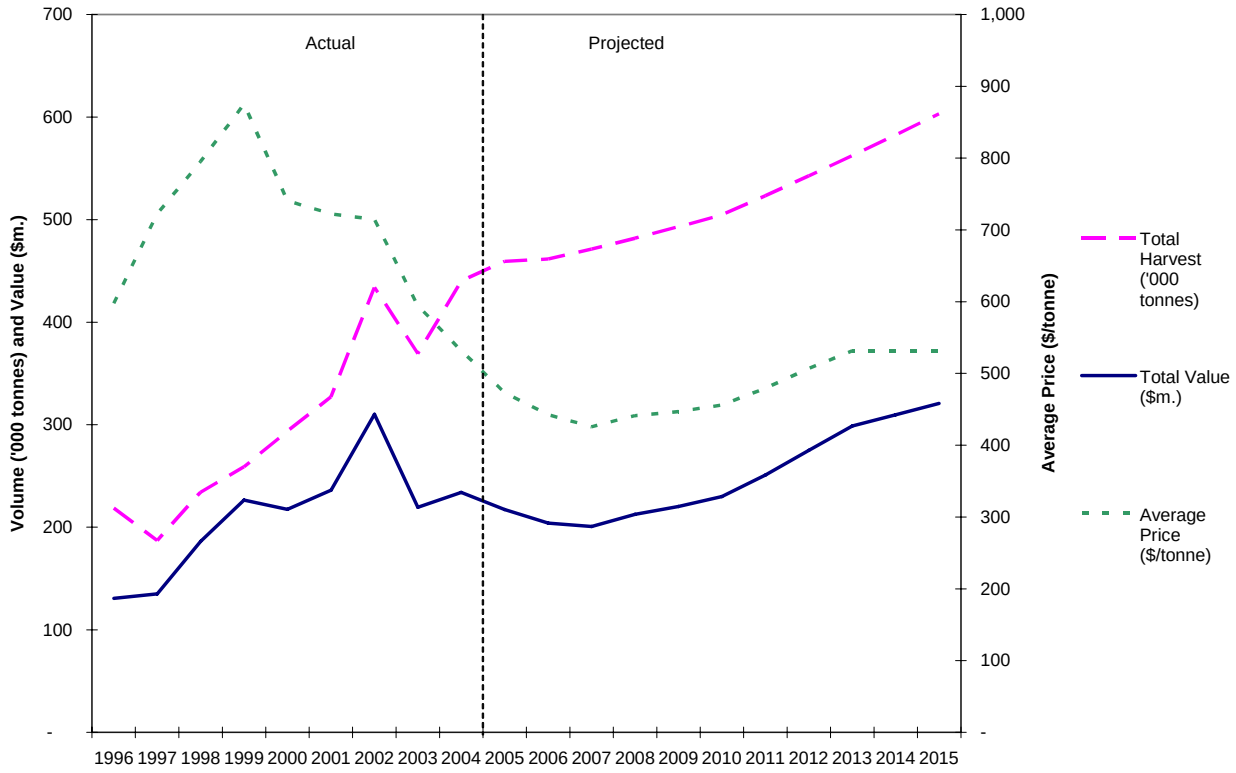


Figure A1.5 summarises the projections under the base-case scenario.

Figure A1.5: Volume and value of Riverland grapes under the base-case scenario



Based on Phylloxera Board data on existing plantings, ABARE predicts production of white grapes to grow at 4.5 – 5% and red grapes to grow at 1.3% until 2010. In keeping with ABARE's predictions about the absorption of oversupply, the predictions for this scenario are for increased plantings from 2007 onwards and a consequent increase in red grape volume growth to around 4.4% for 2011 – 2015. White grape volume growth is expected to slow marginally to 4% over that time.

Riverland average white-grape prices tend to be $88/tonne less than the ABARE white-grape indicator and Riverland average red-grape prices tend to be $23/tonne less than the ABARE red-grape indicator. For the "base case", white grape prices are assumed to bottom out at $425/tonne in 2010 then recover to stabilise at around $480/tonne. Red grape prices are assumed to bottom out at $410/tonne in 2007, then recover and stabilise at around $574/tonne. The resulting average Riverland price for all grapes will bottom out at $426/tonne in 2007, then stabilise at $532.

These are conservative estimates of the long-term equilibrium price, which, in turn, are based on Professor Lockshin's pessimistic scenarios and ABARE's analysis that global demand will grow slowly and that Australia's New and Old World competitors will become increasingly competitive in the markets in which Australia has excelled over the last decade. The reason for the difference between red and white prices is that average yields for red grapes are expected to be lower and that the equilibrium prices are those that will equalise returns per hectare.

The result is a projection of 2.9% annual growth in total winegrape value from $234 million in 2005 to $321 million in 2015. For 2005, the estimate is 459,000 tonnes at an average price of $473/tonne, giving a total winegrape value of $217 million, down $17 million on 2004. Current industry estimates of the 2005 harvest are closer to 480,000 tonnes. If this and the price prediction are accurate, $10 million will be added to the total value.

The "base case" projects a continued decline in total value to $201 million in 2007, before growth resumes.

1.3 "Potentially Achievable" Scenario

This scenario is summarised in Table A1.3 and Figure A1.6 below. It uses the "base case" as a starting point and adjusts it in line with Professor Lockshin's "optimistic" scenario, which broadly assumes that current export trends will continue. As shown in Figure A1.6, those trends include value growth in total exports to Australia's top five destinations of 16.3% p.a. since 2002. However, exports of warm-climate wine types have grown fastest, with the total volume of bulk and popular premium wines growing at 24.5% p.a. since 2000 (AWBC 2005).

The scenario assumes that short-term problems in the winegrape market, can be resolved reasonably quickly – say within three years, or that grape surpluses will be absorbed by the growth in demand that is part of this scenario. It assumes that the other issues discussed above can be resolved expeditiously, but over a longer timeframe. These issues include:

- longer-term coordination of winegrape supply and demand
- vineyard aggregation to reduce costs
- possible under-investment in Riverland productive capacity relative to other warm-climate regions

In summary, this scenario is based on a plausible projection of continued strong growth in demand for competitively-priced Australian warm-climate wine and on the assumption that the above-listed changes will underpin a supply response to meet that demand and provide satisfactory returns to the new investment required.

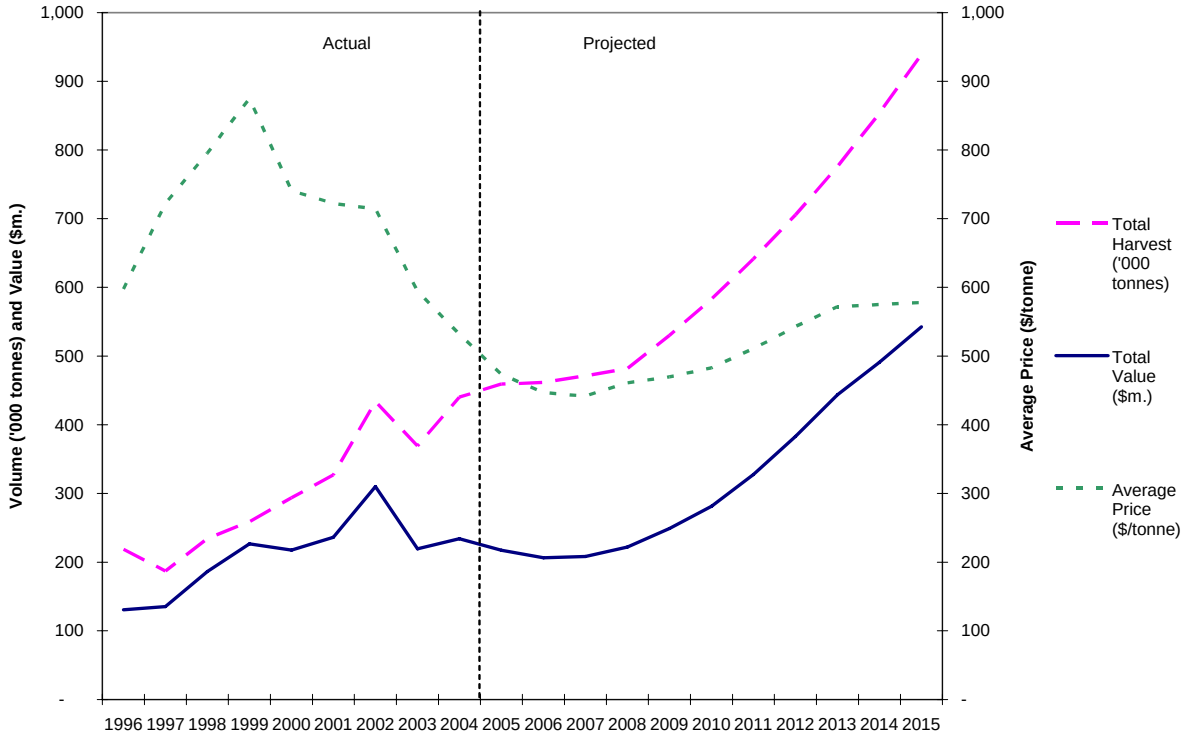
Table A1.3 and Figure A1.6 show slightly more buoyant price projections under this scenario, with average prices bottoming out in 2007 at $442/tonne and stabilising at $578/tonne (real) in 2015. As in the "base case", red grape prices are assumed to stabilise around $42/tonne higher than for white grapes. These prices, being projected averages, include the assumption that prices in normal- and small-crop seasons will be a little above that level, and that contracted grapes in big-crop seasons will be around the average, with surplus grapes diverted into bulk wine and other risk-sharing arrangements and will generally receive a lower price.

Table A1.3: Actual volume and value of Riverland winegrapes 1996-2004 compared with projections under the potentially achievable scenario 2005-2015

	Actual (PGIBSA Utilisation Survey)								
	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Harvest ('000 tonnes)	219	187	234	259	294	327	434	369	440
Total Value ($m.)	131	135	186	227	218	236	310	219	234
Average Price ($/tonne)	598	722	795	875	740	722	715	594	532

	Projected Production (ABARE)						Projected Production (PIRSA)				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Harvest ('000 tonnes)	459	462	471	482	530	583	641	705	776	854	939
Total Value ($m.)	217	206	208	222	249	281	327	383	444	491	543
Average Price ($/tonne)	473	447	442	461	470	483	511	543	572	575	578

Figure A1.6: Volume and value of Riverland grapes under the potentially achievable scenario

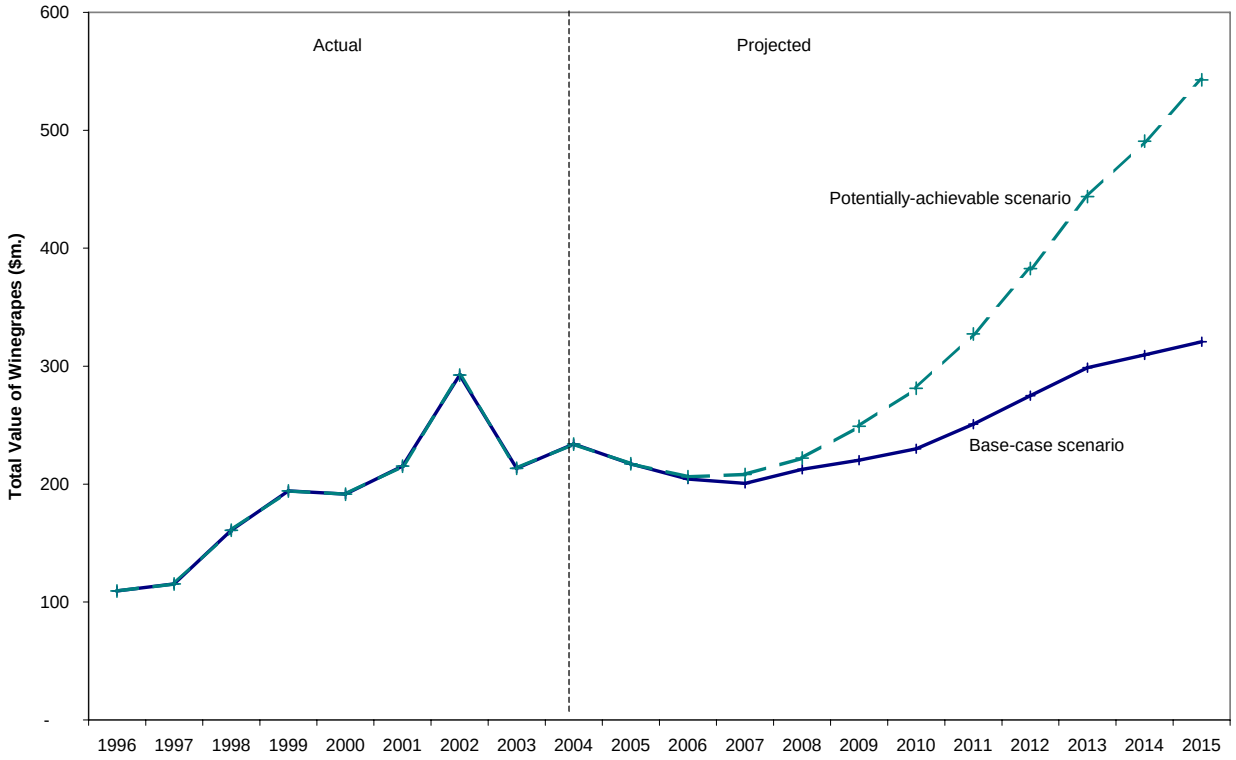


Resolution of the current issues, including improvement in demand and supply forecasting, and absorption of current surpluses are assumed to generate a vineyard planting response, such that total grape volume growth increases from 2.2% in 2007 and 2008 to 10% p.a. from 2009 to 2015. This is considered quite realistic in the light of the rapid warm-climate wine export growth mentioned above. However, with reference to the long-run average cost curve in Figure 2.5, it assumes that existing independent growers will find ways of producing grapes profitably at around $580/tonne and that new vineyard developments will be large enough to do likewise.

The result is steady growth of around 13% p.a. from a total winegrape value bottoming out at $206-208 million in 2006 and 2007 to a projected 939,000-tonne harvest worth $543 million in 2015.

In Figure A1.7, this result is compared with total winegrape value under the "base case". The comparison, indicating a difference of $222 million, represents a 69% increase in total winegrape value. As the scenario name suggests, this outcome is considered "potentially achievable". The analysis in this report suggests that doing so will depend very much on how the issues confronting the Riverland grape and wine industry are resolved.

Figure A1.7: Comparison of the base-case and potentially achievable scenarios



1.4 Scenario Impacts

Table A1.4 compares the estimated impacts that the two scenarios might reasonably be expected to have on the region by 2015. It summarises the *direct* impacts on production volumes and values, job numbers and value-added (contribution to the Gross Regional Product) for the grape and wine winemaking sectors.

Table A1.4[4]: Comparison of the estimated impacts of the two scenarios on the Riverland regional economy

		2004	2015		Scenario Impact	
			Base Case	Potentially-achievable	Estimated Increase	% Increase
Volume	Grapes (KT)	440	603	939	336	56%
	Wine (ML)	263	360	634	274	76%
Value	Grapes ($m.)	234	321	543	222	69%
	Wine ($m.)	550	754	1,328	574	76%
	Total ($m.)	598	819	1,382	563	69%
Jobs	Grapes	2,254	2,473	2,996	522	21%
	Wine	1,377	1,511	2,662	1,151	76%
	Total	3,631	3,985	5,658	1,674	42%
Value-Added	Grapes ($m.)	138	171	289	118	69%
	Wine ($m.)	161	220	388	168	76%
	Total ($m.)	299	391	677	286	73%

Table A1.5: Assumptions underlying scenario-impact estimates

	Base Case Scenario		Potentially-achievable Scenario	
	2004	**2015**	**2004**	**2015**
Crush as % of production	79.5%	79.5%	79.5%	90.0%
Structural productivity growth*		0.0%		22.2%
Technological productivity growth**	2.0%	2.0%	2.0%	2.0%
Substitution impact		10.0%		10.0%

Notes: * once-off growth occuring progressively over forecast period: vineyards only

** annual growth: vineyards and wineries

The assumptions underlying the projections are listed in Table A1.5 above. An explanation follows:

- Under the potentially achievable scenario, structural change in the regional industry results in an increased percentage of grapes being crushed locally. The estimate is an increase from around 80% currently to 90% by 2015.

[4] The Total Value of Grapes and Wine in Table A1.4 is less than the sum of the two individual amounts. This is because most of the grapes are made into wine in the region. Locally-crushed grapes are excluded from the Total figure to avoid double counting their value.

- Under the potentially achievable scenario, structural change in the viticultural sector increased labour productivity from an estimated regional average of 90 labour-hours per hectare to 70, which compares to current best practice in large-scale vineyards of 65 man-hours per hectare. This equates to 22.2% growth over the forecast period.
- In addition to the structurally driven productivity growth, both scenarios are assumed to experience 2% productivity growth from technological innovation.
- It is assumed that additional water requirements may be sourced from other regions, such as the Lower Murray swamps and from interstate. The overall assumption is that 10% of the newly created jobs and value-added will substitute for (that is, replace) jobs and value-added currently being generated in other agricultural industries.

The key messages from the impact analysis are that, if the international wine market performs as projected in the potentially achievable scenario and the Riverland wine industry makes the changes to allow full exploitation of the opportunity that the market provides:

- The total value of grape and wine production in 2015 is projected to be $563 million or 69% greater than under the “base case”.
- Despite the additional productivity improvement that structural change would involve, the total number of jobs in the industry is projected to increase by 1,674 or 42% over the “base case”.
- The resulting increase in wine industry value-added, which consists of wages, salaries and profits that stay in the Riverland, is projected to be $286 million or 73%.

As the scenario modelling is in real (inflation-adjusted) terms, all of the above monetary values are in 2004 dollars.

No indirect impacts are estimated in this analysis. Indirect impacts are those that flow on to the rest of the local economy via both production and consumption-induced effects. Production-induced effects include, for example, new jobs in the fertiliser-supply and transport sectors. Consumption-induced effects include, for example, additional jobs in the retail or restaurant sectors that result from the increased spending power of people in the wine industry. The assumption of structural change in the industry makes it difficult to be confident about the extent of those effects, but they are expected to be broadly proportional to the direct effects.

5. APPENDIX 2: Comment on the situation and views of Riverland winegrape growers

(Provided by Mr Chris Byrne, Executive Officer, Riverland Winegrape Growers Association)

A Growing Sense of Futility

Winegrape Growers in the Riverland are the single largest investor group in the industry. Increasingly they are aware that they have very little if any bargaining power and very little opportunity of influencing industry to focus on long term sustainable outcomes for all stakeholders (including themselves). Growers realise they form the last link in the supply chain. Increasingly Growers' sense there is an expectation that they can and will absorb all cost increases and price pressures experienced by other members of the supply chain. These include pressures resulting from reduced (discounted) selling prices; increases in the unit cost of production whether these are the result of higher input costs for wineries or lower processing volumes. Growers perceive that increases in taxes and levies are also passed on down the chain to the bottom link.

Growers are aggrieved that the sum total of their investments, not only in their vineyards but also in the infrastructure improvements made to ensure they can produce *quality* winegrapes are not valued by industry. These investments have not been made *on spec* but in response to *market signals* or winery suggestions. These include investments in *education and training* to achieve appropriate accreditation in quality assurance standards. Chemical handling certificates *(Chem-cert)* and Hazard Analysis Critical Control Point *(HACCP)* accreditation is all part of Growers' investment in their quest to satisfy industry requirements for quality and to improve the level of security and certainty in their contracts.

Prices being offered now and those that have already been forecast for next year, are not sustainable in as much as they will not meet the cost of growing let alone provide any sort of contribution towards Grower debt or enable any further improvements to Grower enterprises or qualifications.

Without reasonably certainty Growers are not able to borrow or more particularly, banks are not able to lend.

This sense of futility among Growers has grown throughout this 2005 vintage. Most recently, one Winery has written to Growers asking for them to accept a price, $100 per tonne lower than the price offered only six weeks ago, on the basis that the extra $100 will be *banked* and paid next year! For most, although they cannot afford to accept this *ultimatum* they feel there is no alternative. The inference in the letter to Growers is that those who comply will receive preferential consideration next year.

Growers are despairing. Others have become withdrawn and in some cases depressed. Families are experiencing severe pressure and there are signs of conflict as a result. There is a disturbing awareness among Growers of financial institutions who have their own *commercial imperatives* to consider. There has been some talk of Growers *walking off.*

The notion of risk sharing is inflammatory to Growers. Growers are already shouldering a disproportionate share of the *industry risk* at this time.

Quality Concerns

Growers are firmly of the view that the future of the industry relies very much on the quality of grapes grown in the vineyard. Any good winemaker will agree that 60% of the work in making good wine is done in the vineyard. Growers are confounded by the progressive shift away from quality emphases and increasing reliance on bulk wine to increase through-put to achieve low cost of production objectives. Growers perceive the focus is increasingly less on growing quality winegrapes and more on reducing unit costs of production. This quality spiral is being driven by the declining price spiral. Growers want industry to address this issue to develop genuine quality standards and to work to ensure that any such standards are implemented, not just in the vineyard but also at the winery.

Diminishing Value of Contracts

The three elements of contract are: *offer*, *acceptance* and a *mutual consideration*. In recent years many of the contractual arrangements between growers and wineries have been altered and have become *agreements to purchase* since there is no longer mutual consideration expressed in those documents. These *agreements to purchase* are of little value to Growers since financial institutions are not able to assess the real value of such agreements. Wineries have adopted the practice of advising growers of the price per tonne they are willing to offer for grapes of sound quality, prior to, or just after the commencement of harvest. This has enabled wineries to further offset risk by reducing prices offered to growers who have no option but to accept, because winegrapes are a perishable commodity. This is not the case for other commodities that can be stored to enable producers to seek a better price offer.

Typically contracts used to cover a reasonable time period as an acknowledgement that winegrapes do not become *full bearing* till the fourth of fifth year of production. Most of the agreements to purchase offered to growers by wineries these days are for a period of 3 years. This is making it very difficult for growers to actively participate in industry through developing their business enterprises because of the lack of certainty and because the financial institutions are not able to extend loans against such shallow agreements.

One of the major local wineries, McGuigan Simeon, has advised 270 growers in this region and the Sunraysia, that as from the 2007 vintage, those growers will no longer be contracted to that winery.

Diminishing Value of Assets

As the value of contracts diminishes, so also has the value of grower enterprises. For the majority of growers in the Riverland their business enterprise is their superannuation. In the present climate we are witnessing increasing numbers of properties becoming available for sale. Properties without contracts will not command a price anywhere near that that is desirable (necessary) to recover a

reasonable return on a long term investment and certainly not enough to cover superannuation/retirement obligations.

As growers lose confidence in the industry and move out, we witness a further area of decline; the loss of knowledge and experience, (competency) and the huge investment in *education and training* that has largely fuelled the rapid growth of quality winegrapes and formed the foundation upon which industry's reputation is built.

Growers and others in the Riverland region who have worked together to develop the region as the engine room of the industry are demoralised when they observe the redistribution of wealth (by stealth), to concentrated pockets of shareholders who live well beyond the boundaries of the region.

Off Farm Income

The majority of winegrape growers of the Riverland rely upon off farm income to enable them to continue growing high quality winegrapes. As the *flow of benefits* within the region declines, the effect is that other business enterprises will reduce employment and spending in the region. The end result of this will be that many of the growers who are currently surviving, will find that those off farm work opportunities will diminish thereby increasing the number of growers experiencing financial distress.

6. APPENDIX 3: Costs and returns on well-managed Riverland vineyards of various sizes in 2005

Table A3.1 below provides some disaggregation of the operating and capital costs of vineyards of the four size levels used in the cost analysis in this report.

Data on 10- and 50-hectare vineyards was provided by independent growers and compiled by Rural Solutions SA, an agency of the South Australian Government. Those for 170- and 600-hectare vineyards were sourced from accounting records of several corporate producers. All analyses are done on a standard profit-and-loss accounting basis, including depreciation costs. The corporate data include direct administrative overheads, such as accounting costs, but no allowance for a share of head-office overheads. The corporate capital costs are on a historical-cost basis, whereas those for 10- and 50-hectare vineyards are current development costs. Thus the corporate capital-cost data are understated relative to the other. The corporate data has been broadly confirmed by comparison to that of a third major corporate, whose average production costs, including allocation of head-office overheads, equates to $248 per tonne for yields of 23 tonnes per hectare.

Table A3.1: Capital and operating costs of vineyards of various sizes

	Per-hectare Costs				Per-tonne Costs			
	Vineyard Size				Vineyard Size			
	10 ha	50 ha	170 ha	600 ha	10 ha	50 ha	170 ha	600 ha
VARIABLE COSTS								
Pest & Nutrient Sprays	184	185	53	-	8	8	2	-
Herbicides	125	261	68	-	5	11	3	-
Fertiliser	379	379	137	-	16	16	6	-
Irrigation	583	944	219	-	25	41	10	-
Contract Operations	1,757	1,757	-	-	76	76	-	-
Machinery Costs	387	467	100	-	17	20	4	-
Labour	2,375	1,324	2,714	-	103	58	118	-
TOTAL VARIABLE COSTS	5,789	5,317	3,291	2,775	252	231	143	121
OVERHEADS								
Labour	2,863	1,200	1,374	-	124	52	60	-
Consumables	270	100	-	-	12	4	-	-
Maintenance	250	180	340	-	11	8	15	-
Depreciation	2,106	2,323	1,006	-	92	101	44	-
Insurance	218	120	88	-	9	5	4	-
Professional services	285	76	26	-	12	3	1	-
Office/Administration	481	238	127	-	21	10	6	-
TOTAL OVERHEADS	6,473	4,237	2,961	1,850	281	184	129	80
TOTAL OPERATING COSTS	12,262	9,553	6,253	4,625	533	415	272	201
CAPITAL COSTS								
Land, Water, Buildings	23,300	17,924	9,070	-	1,013	779	394	-
Irrigation Infrastructure	4,000	19,800	4,535	-	174	861	197	-
Land Prep., Trellis, Vines	18,883	18,883	31,745	-	821	821	1,380	-
Plant	13,000	5,270	-	-	565	229	-	-
Development Overheads	6,810	1,554	-	-	296	68	-	-
TOTAL CAPITAL COSTS	65,993	63,431	45,350	37,065	2,869	2,758	1,972	1,612

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